



SEQUENCE LISTING

<110> Gerlach, Valerie L
MacDougall, John R
Smithson, Glennda

<120> Novel Polypeptides and Nucleic Acids Encoding Same

<130> 15966-638CIP

<140> 09/898,586
<141> 2001-07-03

<150> 60/177,839
<151> 2000-01-25

<150> 60/176,134
<151> 2000-01-14

<150> 60/175,989
<151> 2000-01-13

<150> 60/218,324
<151> 2000-07-14

<150> 60/220,253
<151> 2000-07-24

<150> 60/178,191
<151> 2000-01-26

<150> 60/178,227
<151> 2000-01-26

<150> 60/220,590
<151> 2000-07-25

<150> 09/761,288
<151> 2001-01-16

<160> 104

<170> PatentIn Ver. 2.1

<210> 1
<211> 1071
<212> DNA
<213> Homo sapiens

<400> 1

atatttcatt ctctgggtct tcatacgat atattcaagc aatggaaggg aaaaatcaaa 60
ccaatatctc tgaatttctc ctccctggct tctcaagttg gcaacaacag caggtgctac 120
tctttgcact tttcctgtgt ctctattaa cagggctgtt tggaaactta ctcatcttgc 180
tggccattgg ctcgatcac tgccttcaca caccatgtt tttcttcctt gccaatctgt 240
ccttggtaga cctctgcctt ccctcagcca cagtcggccaa gatgtactg aacatccaaa 300
cccaaaccctt aaccatctcc tatcccggtt gcctggctca gatgtatttc tgtatgtatgt 360
ttgccaatat ggacaatttt cttctcacag tgcata tgaccgttac gtggccatct 420
gtcaccctttt acattactcc accattatgg ccctgcgcct ctgtgcctt ctggtagctg 480
caccttgggtt cattggcatt ttgaaccctc tcttgcacac tcttatgtt gcccattctgc 540
acttctgcctc tgataatgtt atccaccatt tcttctgttac tatcaactct ctccctccctc 600
tgcctgttc cgacaccagt cttatcagt tgagtgttct ggctacgggtt gggctgtatct 660
ttgtggtacc ttcatgtgtt atcctggat cctatatctt cattgtttctt gctgtatgtt 720
aagtcccttc tgcccaagga aaactcaagg ctttctctac ctgtggatctt caccctgcct 780
tggtcattct tttctatggg gcaatcacag gggtctatat gagccctta tccaatcaact 840
ctactgaaaa agactcagcc gcatcagtca ttttatggt tgtagcacctt gtgtgaatct 900
cattcattta cagtttaaga aacaatgaac tgaaggggac tttaaaaaaag accctaagcc 960
gaccgggcgc ggtggctcac gcctgtatctt ccagcactttt gggaggccga ggcgggttgg 1020
tcatacgatcaggc gaccatcctt gctaaacaagg tgaaaccccg t 1071

<210> 2

<211> 337

<212> PRT

<213> Homo sapiens

<400> 2

Met Glu Gly Lys Asn Gln Thr Asn Ile Ser Glu Phe Leu Leu Leu Gly

1 5 10 15

Phe Ser Ser Trp Gln Gln Gln Val Leu Leu Phe Ala Leu Phe Leu

20 25 30

Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala

35 40 45

Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala

50 55 60

Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys

65 70 75 80

Met Leu Leu Asn Ile Gln Thr Gln Thr Ile Ser Tyr Pro Gly

85 90 95

Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn

100 105 110

Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
115 120 125

Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu
130 135 140

Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr
145 150 155 160

Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His
165 170 175

Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr
180 185 190

Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val
195 200 205

Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala
210 215 220

Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr
225 230 235 240

Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Ile Thr
245 250 255

Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser
260 265 270

Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe
275 280 285

Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly Thr Leu Lys Lys Thr
290 295 300

Leu Ser Arg Pro Gly Ala Val Ala His Ala Cys Asn Pro Ser Thr Leu
305 310 315 320

Gly Gly Arg Gly Gly Trp Ile Met Arg Ser Gly Asp Arg Asp His Pro
325 330 335

Gly

<211> 1040

<212> DNA

<213> Homo sapiens

<400> 3

ccgaacaagt taaaatgaat ctgttttaa acacttctcc taaaccatga gcattaactt 60
gatttcctct gtcatalogga tatggagac aatataacat ccatcagaga gttcctccta 120
ctgggatttc ccgttggccc aaggattcag atgctcctct ttgggctctt ctccctgttc 180
tacgtcttca ccctgctggg gaacgggacc atactgggc tcatctcaact ggactccaga 240
ctgcacgccc ccatgtactt cttcctctca cacctggcgg tcgtcgacat cgcctacgcc 300
tgcaacacgg tgcccccggat gctggtaac ctccctgcata cagccaagcc catctcctt 360
gcggggccgca ttagtgcagac ctttctgtt tccacttttgc ttagtgcacaga atgtctcctc 420
ctgggtggta tgcctatga tctgtacgtg gccatctgcc accccctccg atatttggcc 480
atcatgaccc ggagagtcg catcaccctc gcggtgactt cctggaccac tggagtcctt 540
ttatccttga ttcatcttgc tttacttcta ctttaccct tctgttagggcc ccagaaaatt 600
tatcacttttt tttgtgaaat cttggctgtt ctcaaacttg cctgtgcaga taccacatc 660
aatgagaaca tggcttggc cggagcaatt tctggctgg tgggaccctt gtccacaatt 720
gtagtttcat atatgtgcat cctctgtgct atccttcaga tccaatcaag ggaagttcag 780
aggaaaggct tccgcacctg cttctccac ctctgtgtga ttggactcgt ttatggcaca 840
gccattatca tgcatagttgg acccagatggaaacccca aggagcagaa gaaatatctc 900
ctgctgtttc acagcctttaatccatg ctcaatcccc ttatctgttagtgc tcttaggaac 960
tcagaagtga agaatactttt gaagagagtg ctggagtagaaaggctttt atgaaaagga 1020
ttatggcatt gtgactgaca 1040

<210> 4

<211> 310

<212> PRT

<213> Homo sapiens

<400> 4

Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg
85 90 95

Met	Met	Gln	Thr	Phe	Leu	Phe	Ser	Thr	Phe	Ala	Val	Thr	Glu	Cys	Leu
100								105				110			
Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Leu	Tyr	Val	Ala	Ile	Cys	His	Pro
115								120				125			
Leu	Arg	Tyr	Leu	Ala	Ile	Met	Thr	Trp	Arg	Val	Cys	Ile	Thr	Leu	Ala
130						135				140					
Val	Thr	Ser	Trp	Thr	Thr	Gly	Val	Leu	Leu	Ser	Leu	Ile	His	Leu	Val
145					150					155				160	
Leu	Leu	Leu	Pro	Leu	Pro	Phe	Cys	Arg	Pro	Gln	Lys	Ile	Tyr	His	Phe
						165				170				175	
Phe	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His
						180			185				190		
Ile	Asn	Glu	Asn	Met	Val	Leu	Ala	Gly	Ala	Ile	Ser	Gly	Leu	Val	Gly
						195			200				205		
Pro	Leu	Ser	Thr	Ile	Val	Val	Ser	Tyr	Met	Cys	Ile	Leu	Cys	Ala	Ile
						210			215				220		
Leu	Gln	Ile	Gln	Ser	Arg	Glu	Val	Gln	Arg	Lys	Ala	Phe	Arg	Thr	Cys
225						230				235				240	
Phe	Ser	His	Leu	Cys	Val	Ile	Gly	Leu	Val	Tyr	Gly	Thr	Ala	Ile	Ile
						245			250				255		
Met	Tyr	Val	Gly	Pro	Arg	Tyr	Gly	Asn	Pro	Lys	Glu	Gln	Lys	Lys	Tyr
						260			265				270		
Leu	Leu	Leu	Phe	His	Ser	Leu	Phe	Asn	Pro	Met	Leu	Asn	Pro	Leu	Ile
						275			280				285		
Cys	Ser	Leu	Arg	Asn	Ser	Glu	Val	Lys	Asn	Thr	Leu	Lys	Arg	Val	Leu
						290			295				300		
Gly	Val	Glu	Arg	Ala	Leu										
						305			310						

<210> 5

<211> 1090

<212> DNA

<213> *Homo sapiens*

<400> 5

aagaagtct tcagatgcga ggttcaaca aaaccactgt ggttacacag ttcatcctgg 60
tggtttctc cagcctgggg gagctccagc tgctgcttt tgcatactt cttctccat 120
acttgacaat cctggtgcc aatgtgacca tcatggccgt tattcgctc agctggactc 180
tccacactcc catgtatggc tttctattca tccttcatt ttctgagtcc tgctacactt 240
ttgtcatcat ccctcagctg ctggccacc tgctctcaga caccaagacc atctcctca 300
tggcctgtgc caccagctg ttctttcc ttggcttgc ttgcaccaac tgcctccat 360
ttgctgtat gggatatgtat cgctatgttag caatttgtca ccctctgagg tacacactca 420
tcataaaacaa aaggctgggg ttggagttga tttctctc aggagccaca ggtttctta 480
ttgcttttgt ggccaccaac ctcatttgat acatgcgtt ttgtggcccc aacagggta 540
accactatcc ctgtgacatg gcacctgtta tcaagttgc ctgcactgac acccatgtga 600
aagagctggc tttatattgc ctcagcatcc tggtaattat ggtgccttt ctgttaattc 660
tcataatccta tggcttcata gttAACACCA tcctgaagat cccctcagct gagggcaaga 720
aggccttgtt cacctgtgcc tcacatctca ctgtggctt tgtccactat ggctgtgcct 780
ctatcatcta tctgcccccc aagtccaaatg ctgcctcaga caaggatcag ttggcggcag 840
tgacctacac agtggttact cccttactta atcctcttgc ctacagtctg aggaacaaag 900
aggtaaaaac tgcattgaaa agagttcttgaatgcctgt ggcaaccaag atgagctaac 960
aaaaaataat aataaaatata actaggatag tcacagaaga aatcaaaggc ataaaatttt 1020
ctgacctta atgcatgtct cagacagtttgc ttccaaggat taagactact cttgccttt 1080
tattttctcc 1090

<210> 6

<211> 314

<212> PRT

<213> Homo sapiens

<400> 6

Met Arg Gly Phe Asn Lys Thr Thr Val Val Thr Gln Phe Ile Leu Val
1 5 10 15

Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
20 25 30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
35 40 45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
50 55 60

Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
65 70 75 80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Phe Met
85 90 95

Ala Cys Ala Thr Gln Leu Phe Phe Leu Gly Phe Ala Cys Thr Asn

100	105	110
Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys		
115	120	125
His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu		
130	135	140
Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala		
145	150	155
160		
Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn		
165	170	175
His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp		
180	185	190
Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile		
195	200	205
Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn		
210	215	220
Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr		
225	230	235
240		
Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Gly Cys Ala Ser		
245	250	255
Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln		
260	265	270
Leu Val Ala Val Thr Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu		
275	280	285
Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg Val		
290	295	300
Leu Gly Met Pro Val Ala Thr Lys Met Ser		
305	310	

<210> 7
 <211> 1090
 <212> DNA
 <213> Homo sapiens

<400> 7

aagaagttct tcagatgcga ggtttcaaca aaaccactgt gtttacacag ttcatcctgg 60
 tgggttctc cagcctgggg gagctccagc tgctactttt tgtcatctt cttctcctat 120
 acttgcacat cctggtggcc aatgtgacca tcatggccgt tattcgcttc agctggactc 180
 tccacactcc catgtatggc tttctatca tccttcatt ttctgagtcc tgctacactt 240
 ttgtcatcat ccctcagctg ctggtccacc tgctctcaga caccaagacc atctccctca 300
 tggcctgtgc cacccagctg ttcttttcc ttggcttgc ttgcaccaac tgcctcctca 360
 ttgctgtat gggatatgtat cgctatgttag caatttgcata ccctctgagg tacacactca 420
 tcataaaacaa aaggctgggg ttggagttga tttctcttc agggggccaca ggtttctta 480
 ttgcttttgtt ggccaccaac ctcatttgtg acatgcgtt ttgtggcccc aacagggtta 540
 accactatctt ctgtgacatg gcacctgtta tcaagttagc ctgcactgac acccatgtga 600
 aagagctggc ttatattagc ctcagcatcc tggtaattat ggtgcctttt ctgttaattc 660
 tcataatccta tggcttcata gtcaacacca tcctgaagat cccctcagct gagggcaaga 720
 aggcctttgtt cacctgtgcc tcacatctca ctgtggctt tgcactat gactgtgcct 780
 ctatcatcta tctgcggccc aagtccaaatg ctgcctcaga caaggatcag ttgggtggcag 840
 tgacccatgc agtggttact cccttactta atcctcttgc ctacagtctg aggaacaaag 900
 aggtaaaaac tgcattgaaa agagttcttgaatgcctgt ggcaaccaag atgagctaac 960
 aaaaaataat aataaaatta actaggatag tcacagaaga aatcaaaggc ataaaatttt 1020
 ctgacccctta atgcattgtct cagacagtgt ttccaaggat taagactact cttgcctttt 1080
 tattttctcc 1090

<210> 8
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 8

Met Arg Gly Phe Asn Lys Thr Thr Val Val Thr Gln Phe Ile Leu Val
 1 5 10 15

Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
 20 25 30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
 35 40 45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
 50 55 60

Phe Ile Leu Ser Phe Ser Cys Tyr Thr Phe Val Ile Ile Pro
 65 70 75 80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Leu Met
 85 90 95

Ala Cys Ala Thr Gln Leu Phe Phe Leu Gly Phe Ala Cys Thr Asn
 100 105 110

Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys
115 120 125

His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu
130 135 140

Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala
145 150 155 160

Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn
165 170 175

His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp
180 185 190

Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile
195 200 205

Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn
210 215 220

Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Asp Cys Ala Ser
245 250 255

Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln
260 265 270

Leu Val Ala Val Thr Tyr Ala Val Val Thr Pro Leu Leu Asn Pro Leu
275 280 285

Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg Val
290 295 300

Leu Gly Met Pro Val Ala Thr Lys Met Ser
305 310

<210> 9
<211> 822
<212> DNA
<213> Homo sapiens

<400> 9
cacaccccca tgtgcttctt cctctccaaa ctgtgctcag ctgacatcgg tttcaccttg 60
gccatggttc ccaagatgat tgtgaacatg cagtcgcata gcagagtcat ctcttatgag 120

ggctgcctga cacggatgtc tttcttgc tttttgcat gtatggaaga catgctcctg 180
actgtatgg cctatgactg cttttagcc atctgtcgcc ctctgcacta cccagtcata 240
gtgaatcctc acctctgtgt cttcttcgtc ttgggtgcct ttttccttag cccgttggat 300
tcccagtc acagttggat tgtgttacta ttccaccatca tcaagaatgt ggaaatcact 360
aattttgtct gtgaaccctc tcaacttctc aaccttgctt gttctgacag cgtcatcaat 420
aacatattca tatatttcga tagtactatg tttggtttc ttcccatttc agggatcctt 480
ttgtcttact ataaaaattgt cccctccatt ctaaggatgt catcgatcaga tggaaagtat 540
aaaggctct ccacctgtgg ctcttacctg gcagttgtt gtcatttga tggaaacaggc 600
attggcatgt acctgacttc agctgtgtca ccacccccc gaaatgggt ggtggcgtca 660
gtgatgtatg ctgtggtcac cccatgtg aacctttca tctcagccca ggaaagaggg 720
atatacaaag tgcctgcgg aggctgtgca gcagaacagt cgaatctcat gatatgttcc 780
atccttttc ttgtgtgggt gagaaggc aaccacatta aa 822

<210> 10
<211> 265
<212> PRT
<213> Homo sapiens

<400> 10

Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
1 5 10 15

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
35 40 45

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
50 55 60

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
65 70 75 80

Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro
85 90 95

Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile
100 105 110

Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu
115 120 125

Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe
130 135 140

Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser

145	150	155	160
Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser Asp Gly			
165	170	175	
Lys Tyr Lys Gly Phe Ser Thr Cys Gly Ser Tyr Leu Ala Val Val Cys			
180	185	190	
Ser Phe Asp Gly Thr Gly Ile Gly Met Tyr Leu Thr Ser Ala Val Ser			
195	200	205	
Pro Pro Pro Arg Asn Gly Val Val Ala Ser Val Met Tyr Ala Val Val			
210	215	220	
Thr Pro Met Leu Asn Leu Phe Ile Tyr Ser Leu Gly Lys Arg Asp Ile			
225	230	235	240
Gln Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp			
245	250	255	
Met Phe His Pro Phe Ser Cys Val Gly			
260	265		

<210> 11
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 11
 ttgctgtccc tgtccctgtc catgtatatg gtcacgggtgc tgaggaacct gctcagcatac 60
 ctggctgtca gctctgactc cccgctccac acccccattgt gcttcttcct ctccaaactg 120
 tgctcagctg acatcggttt caccttgcc atggttccca agatgattgt gaacatgcag 180
 tgcatacgca gagtcatctc ttatgagggc tgcctgacac ggatgtctt ctttgcctt 240
 tttgcatgta tgaagacat gctcctgact gtgatggcct atgactgctt ttagccatc 300
 tgcgcctc tgcactaccc agtcatcgta aatcctcacc tctgtgtctt cttcgtctt 360
 gtgtcccttt tccttagccc gttggattcc cagtcacaca gtggattgt gttactattc 420
 accatcatca agaatgtgga aatcaataat ttgtctgt aaccctctca acttctcaac 480
 cttgttgcgt ctgacagcgt catcaataac atattcatat attcgtatag tactatgtt 540
 gttttcttc ccatttcagg gatccttttgc tcttactata aaattgtccc ctccattcta 600
 aggtatgtcat cgtcagatgg gaagtataaa ggcttctcca cctgtggcgc ttacctggca 660
 gttgttgcgt catttgcgt aacaggcatt ggcatgtacc tgacttcage tgcgtcacca 720
 cccccccaggaa atgggtgtggt ggcgtcagtg atgtatgtc tggtcacccc catgctgaac 780
 cttttcatac tcagcctggg aaagaggat atacaaaatgt tcctgcggag gctgtgcagc 840
 agaacatgtcg aatctcatga tatgttccat ctttttctt gtgtgggtga gaaaggca 900
 ccacattaaa tctctacatc tgtaaatcct 930

<210> 12

<211> 294

<212> PRT

<213> Homo sapiens

<400> 12

Met Tyr Met Val Thr Val Leu Arg Asn Leu Leu Ser Ile Leu Ala Val
1 5 10 15

Ser Ser Asp Ser Pro Leu His Thr Pro Met Cys Phe Phe Leu Ser Lys
20 25 30

Leu Cys Ser Ala Asp Ile Gly Phe Thr Leu Ala Met Val Pro Lys Met
35 40 45

Ile Val Asn Met Gln Ser His Ser Arg Val Ile Ser Tyr Glu Gly Cys
50 55 60

Leu Thr Arg Met Ser Phe Phe Val Leu Phe Ala Cys Met Glu Asp Met
65 70 75 80

Leu Leu Thr Val Met Ala Tyr Asp Cys Phe Val Ala Ile Cys Arg Pro
85 90 95

Leu His Tyr Pro Val Ile Val Asn Pro His Leu Cys Val Phe Phe Val
100 105 110

Leu Val Ser Phe Phe Leu Ser Pro Leu Asp Ser Gln Leu His Ser Trp
115 120 125

Ile Val Leu Leu Phe Thr Ile Ile Lys Asn Val Glu Ile Thr Asn Phe
130 135 140

Val Cys Glu Pro Ser Gln Leu Leu Asn Leu Ala Cys Ser Asp Ser Val
145 150 155 160

Ile Asn Asn Ile Phe Ile Tyr Phe Asp Ser Thr Met Phe Gly Phe Leu
165 170 175

Pro Ile Ser Gly Ile Leu Leu Ser Tyr Tyr Lys Ile Val Pro Ser Ile
180 185 190

Leu Arg Met Ser Ser Asp Gly Lys Tyr Lys Gly Phe Ser Thr Cys
195 200 205

Gly Ser Tyr Leu Ala Val Val Cys Ser Phe Asp Gly Thr Gly Ile Gly
210 215 220

Met Tyr Leu Thr Ser Ala Val Ser Pro Pro Pro Arg Asn Gly Val Ala
225 230 235 240

Ser Val Met Tyr Ala Val Val Thr Pro Met Leu Asn Leu Phe Ile Leu
245 250 255

Ser Leu Gly Lys Arg Asp Ile Gln Ser Val Leu Arg Arg Leu Cys Ser
260 265 270

Arg Thr Val Glu Ser His Asp Met Phe His Pro Phe Ser Cys Val Gly
275 280 285

Glu Lys Gly Gln Pro His
290

<210> 13

<211> 930

<212> DNA

<213> Homo sapiens

<400> 13

cacagagcca cggaatctca caggtgtctc agaattcctc ctccctggac tctcagagga 60
tccagaactg cagccggtcc tcgccttgct gtccctgtcc ctgtccatgt atctggtcac 120
agtgtgagg aacctgtca gcatccggc tgcagctct gactccacc tccacacccc 180
cacgtacttc ttccctctcca tccgtgtctg ggctgacatc ggttcacct cggccacggt 240
tcccaagatg attgtggaca tgcagtgtta tagcagatc atctctcatg cgggctgcct 300
gacacagatg tctttcttgg tccttttgc atgtatagaa ggcatgtcc tgactgtaat 360
ggcctatgac tgctttgttag gcatctatcg ccctctgcac tacccagtca tcgtgaatcc 420
tcatctctgt gtcttctttg ttttgggtc cttttccctt agcctgttgg attcccaagct 480
gcacagtgg attgtgttac aattcaccat catcaagaat gtggaaatct ctaattttgt 540
ctgtgacccc tctcaacttc tcaaacttgc ctcttatgac agcgtcatca atagcatatt 600
catatatttc gatagtacaa tgggtttt tcttcattt tcaggatcc tttcatctta 660
ctataaaatt gtcccttcca ttctaaggat gtcatctgtca gatggaaatgt ataaaacttt 720
ctccacccat ggctctcacc tagcatttgt ttgtcttatt tatggaaacag gcattgacat 780
gtacctggct tcaagctatgt caccacccc caggaatggt gtgggtgtgt cagtgtatgt 840
agctgtggtc accccatgc tgaacctttt catctacagc ctgagaaaca gggacataca 900
aagtgcctg cggaggctgc gcagcagaac 930

<210> 14

<211> 309

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (280)

<223> Wherein Xaa is any amino acid.

<400> 14

Thr	Glu	Pro	Arg	Asn	Leu	Thr	Gly	Val	Ser	Glu	Phe	Leu	Leu	Leu	Gly
1															15
Leu	Ser	Glu	Asp	Pro	Glu	Leu	Gln	Pro	Val	Leu	Ala	Leu	Leu	Ser	Leu
	20														30
Ser	Leu	Ser	Met	Tyr	Leu	Val	Thr	Val	Leu	Arg	Asn	Leu	Leu	Ser	Ile
	35														45
Pro	Ala	Val	Ser	Ser	Asp	Ser	His	Leu	His	Thr	Pro	Thr	Tyr	Phe	Phe
	50														60
Leu	Ser	Ile	Leu	Cys	Trp	Ala	Asp	Ile	Gly	Phe	Thr	Ser	Ala	Thr	Val
	65														80
Pro	Lys	Met	Ile	Val	Asp	Met	Gln	Trp	Tyr	Ser	Arg	Val	Ile	Ser	His
	85														95
Ala	Gly	Cys	Leu	Thr	Gln	Met	Ser	Phe	Leu	Val	Leu	Phe	Ala	Cys	Ile
	100														110
Glu	Gly	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	Cys	Phe	Val	Gly	Ile
	115														125
Tyr	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn	Pro	His	Leu	Cys	Val
	130														140
Phe	Phe	Val	Leu	Val	Ser	Phe	Phe	Leu	Ser	Leu	Leu	Asp	Ser	Gln	Leu
	145														160
His	Ser	Trp	Ile	Val	Leu	Gln	Phe	Thr	Ile	Ile	Lys	Asn	Val	Glu	Ile
	165														175
Ser	Asn	Phe	Val	Cys	Asp	Pro	Ser	Gln	Leu	Leu	Lys	Leu	Ala	Ser	Tyr
	180														190
Asp	Ser	Val	Ile	Asn	Ser	Ile	Phe	Ile	Tyr	Phe	Asp	Ser	Thr	Met	Phe
	195														205
Gly	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Ser	Ser	Tyr	Tyr	Lys	Ile	Val
	210														220
Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly	Lys	Tyr	Lys	Thr	Phe
	225														240

Ser Thr Tyr Gly Ser His Leu Ala Phe Val Cys Ser Phe Tyr Gly Thr
245 250 255

Gly Ile Asp Met Tyr Leu Ala Ser Ala Met Ser Pro Thr Pro Arg Asn
260 265 270

Gly Val Val Val Ser Val Met Xaa Ala Val Val Thr Pro Met Leu Asn
275 280 285

Leu Phe Ile Tyr Ser Leu Arg Asn Arg Asp Ile Gln Ser Ala Leu Arg
290 295 300

Arg Leu Arg Ser Arg
305

<210> 15

<211> 994

<212> DNA

<213> Homo sapiens

<400> 15

tgcagctaaa gtgcattgtg taaaacatgg gggatgtgaa tcagtcggtg gcctcagact 60
tcattctggt gggcctcttc agtcacttcg gatcacgcca gctcctcttc tccctggtgg 120
ctgtcatgtt tgtcataggc cttctggca acaccgttct tcttttcttgc atccgtgtgg 180
actcccgct ccatacaccc atgtacttcc tgctcagccca gctctccctg tttgacattg 240
gctgtcccat ggtcaccatc cccaaatgg catcagactt tctgcggggaa gaaggtgc 300
cctccatgg aggtggtgca gctcaaataat tcttcctcac actgtatgggt gtggctgagg 360
gcgtcctgtt ggtcctcatg tcttatgacc gttatgttgc tttgtgcccag cccctgcagt 420
atccctgtact tatgagacgc caggtatgtc tgctgatgtat gggctccctcc tgggtggtag 480
gtgtgctcaa cgccctccatc cagacccatca tcaccctgca ttttccctac tttttttttt 540
gtattgtgga tcacttcttc tgtgagggtgc cagccctactt gaagctctcc tttttttttt 600
cctgtgccta cgagatggcg ctgtccaccc tttttttttt cttttttttt tttttttttt 660
ccctcatcgcc cacccatcgcc gggccacgtgt tgccaggctgt tcttccatcgcc 720
aggccagaca caaggctgtc accaccgtgtt cctccatcgcc cacccatcgcc gggccacgtgtt 780
atgggtccgc cgtgttcatg tacatgggtgc cttggcccta ccacatgttcc cttttttttt 840
acgtggtttc cctttttttt tttttttttt tttttttttt tttttttttt tttttttttt 900
tgaggaatcc ggaggtgtgg atggctttgg tcaaagtgtct tagcagagct ggactcaggc 960
aaatgtgtctg actacataga aactgtgtgg tttttttttt tttttttttt tttttttttt 994

<210> 16

<211> 314

<212> PRT

<213> Homo sapiens

<400> 16

Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly

1	5	10	15												
Leu	Phe	Ser	His	Ser	Gly	Ser	Arg	Gln	Leu	Leu	Phe	Ser	Leu	Val	Ala
				20				25						30	
Val	Met	Phe	Val	Ile	Gly	Leu	Leu	Gly	Asn	Thr	Val	Leu	Leu	Phe	Leu
				35				40						45	
Ile	Arg	Val	Asp	Ser	Arg	Leu	His	Thr	Pro	Met	Tyr	Phe	Leu	Leu	Ser
				50				55				60			
Gln	Leu	Ser	Leu	Phe	Asp	Ile	Gly	Cys	Pro	Met	Val	Thr	Ile	Pro	Lys
				65			70			75			80		
Met	Ala	Ser	Asp	Phe	Leu	Arg	Gly	Glu	Gly	Ala	Thr	Ser	Tyr	Gly	Gly
				85				90				95			
Gly	Ala	Ala	Gln	Ile	Phe	Phe	Leu	Thr	Leu	Met	Gly	Val	Ala	Glu	Gly
				100			105				110				
Val	Leu	Leu	Val	Leu	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Val	Cys	Gln
				115			120			125					
Pro	Leu	Gln	Tyr	Pro	Val	Leu	Met	Arg	Arg	Gln	Val	Cys	Leu	Leu	Met
				130			135			140					
Met	Gly	Ser	Ser	Trp	Val	Val	Gly	Val	Leu	Asn	Ala	Ser	Ile	Gln	Thr
				145			150			155			160		
Ser	Ile	Thr	Leu	His	Phe	Pro	Tyr	Cys	Ala	Ser	Arg	Ile	Val	Asp	His
				165			170			175					
Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ala	Asp	Thr
				180			185			190					
Cys	Ala	Tyr	Glu	Met	Ala	Leu	Ser	Thr	Ser	Gly	Val	Leu	Ile	Leu	Met
				195			200			205					
Leu	Pro	Leu	Ser	Leu	Ile	Ala	Thr	Ser	Tyr	Gly	His	Val	Leu	Gln	Ala
				210			215			220					
Val	Leu	Ser	Met	Arg	Ser	Glu	Glu	Ala	Arg	His	Lys	Ala	Val	Thr	Thr
				225			230			235			240		
Cys	Ser	Ser	His	Ile	Thr	Val	Val	Gly	Leu	Phe	Tyr	Gly	Ala	Ala	Val
				245			250			255					
Phe	Met	Tyr	Met	Val	Pro	Cys	Ala	Tyr	His	Ser	Pro	Gln	Gln	Asp	Asn

260

265

270

Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val
290 295 300

Leu Ser Arg Ala Gly Leu Arg Gln Met Cys
305 310

<210> 17

<211> 996

<212> DNA

<213> Homo sapiens

<400> 17

tgcagctaaa gtgcattgtg taaaactatg gggatgtga atcagtcgg ggcctcagac 60
ttcattctgg tggcctctt cagtcactca ggatcacgac agctccctt ctccctgg 120
gctgtcatgt ttgtcatagg cttctggc aacaccgttc ttctttttt gatccgtgtg 180
gactccggc tccacacacc catgtacttc ctgctcagcc agctctccctt gtttgacatt 240
ggctgtccca tggcattat ccccaagatg gcacatcactt ttctgcgggg agaagggtgcc 300
acccctatg gagggtggc agctcaaata ttcttcctca cactgatggg tggctgtgag 360
ggcgtctgt tggcctcat gtcttatgac cgttatgtt ctgtgtgcc 420
tatcctgtac ttatgagacg ccaggtatgt ctgctgatga tggctctc ctgggtggta 480
ggtgtgtca acccctccat ccagacccatcc atcaccctgc atttcccta ctgtgcctcc 540
cgtattgtgg atcacttctt ctgtgagggt ccagccctac tgaagctctc ctgtgcagat 600
acctgtgcct acgagatggc gctgtccacc tcagggtggc tgatccta at gtcctctt 660
tccctcatcg ccacccctca cggccacgtt ttgcaggctt ttctaaagcat gctgtcagag 720
gaggccagac acaaggctgtt caccacctgc tcctcgacaca tcacggtagt ggggctctt 780
tatggcggcc cggtgttcat gtacatgggtt cttgcgcctt accacagttt acagcaggat 840
aacgtggttt cccttttcta tagccttgc accccatcac tcaacccctt tatctacagt 900
ctgagaaatc cgaggtgtt gatggctttt gtcggatgtc ttgcggatgc tggactcagg 960
caaatgtgca tgactacata gaaactgtgtg gtgaga 996

<210> 18

<211> 317

<212> PRT

<213> Homo sapiens

<400> 18

Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly
1 5 10 15

Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala
20 25 30

Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu
 35 40 45

Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser
 50 55 60

Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys
 65 70 75 80

Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly
 85 90 95

Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly
 100 105 110

Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln
 115 120 125

Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met
 130 135 140

Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr
 145 150 155 160

Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His
 165 170 175

Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr
 180 185 190

Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met
 195 200 205

Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala
 210 215 220

Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr
 225 230 235 240

Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val
 245 250 255

Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn
 260 265 270

Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val
290 295 300

Leu Ser Arg Ala Gly Leu Arg Gln Met Cys Met Thr Thr
305 310 315

<210> 19
<211> 1077
<212> DNA
<213> Homo sapiens

<400> 19
cagttcatt gacaaggcata caccaccatc atgaatccat ccaatcattt ccagggtggca 60
ggatttggc tactggggct ctctcagggt tggaggttc gttttgtttt cttcaactgtt 120
ttctctgttg tgatattttat gactgtatg gaaacccatc ttattgtgtt catagtgacc 180
tccgacccac acctgcacac aaccatgtat tttctcttgg gcaatcttc tttcctggac 240
ttttgtact cttccatcac agcacctagg atgctgggtt acttgctctc aggcaaccct 300
accatccat tgggtggatg cctgactcaa ctcttcttcc tccacttcat tggaggtt 360
aagatcttcc tgctgactgt catggcgat gaccgctaca ttgccatttc ccagccctg 420
caactacacgc tcattatgaa tcagactgtc tgcacttcc ttatggcgcg ctccctgggt 480
gggggcttca tccactccat agtacagatt gcattgacta tccagctgccc attctgtggg 540
cctgacaaggc tggacaactt ttattgtat gtgcctcagc tgcataattt ggcctgcaca 600
gataccttttgc tcttagatgt ttaatgtgt tctaacaatg gcctgggtac cctgatgtgt 660
tttctgggtgc ttctgggatc gtacacagca ctgctgtca tgcctccaa gcaactcacgg 720
gaggggccgca gcaaggccct gtctacatgt gccttcaca ttgtgtgggt gacccataatc 780
tttgccttgc tcatctacgt ctatataagg cttttcgaa cattccccat ggacaaggcc 840
gtctgtgtgc tatacacaat tgcacccccc atgctgaatc ctgcctatca taccctgaga 900
aacaaggaag tgatcatggc catgaagaag ctgtggagga gaaaaaaaggaa ccctattgggt 960
ccctggagc acagaccctt acattagcag aggcagtgc ctgagaatct gaaagatgt 1020
acagggttattt agcagaggca gtgacctgag aatctgaaag atgctacagg gtattag 1077

<210> 20
<211> 318
<212> PRT
<213> Homo sapiens

<400> 20
Met Asn Pro Ala Asn His Ser Gln Val Ala Gly Phe Val Leu Leu Gly
1 5 10 15

Leu Ser Gln Val Trp Glu Leu Arg Phe Val Phe Phe Thr Val Phe Ser
20 25 30

Ala Val Tyr Phe Met Thr Val Val Gly Asn Leu Leu Ile Val Val Ile
35 40 45

Val Thr Ser Asp Pro His Leu His Thr Thr Met Tyr Phe Leu Leu Gly
 50 55 60

Asn Leu Ser Phe Leu Asp Phe Cys Tyr Ser Ser Ile Thr Ala Pro Arg
 65 70 75 80

Met Leu Val Asp Leu Leu Ser Gly Asn Pro Thr Ile Ser Phe Gly Gly
 85 90 95

Cys Leu Thr Gln Leu Phe Phe His Phe Ile Gly Gly Ile Lys Ile
 100 105 110

Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Ile Ala Ile Ser Gln
 115 120 125

Pro Leu His Tyr Thr Leu Ile Met Asn Gln Thr Val Cys Ala Leu Leu
 130 135 140

Met Ala Ala Ser Trp Val Gly Gly Phe Ile His Ser Ile Val Gln Ile
 145 150 155 160

Ala Leu Thr Ile Gln Leu Pro Phe Cys Gly Pro Asp Lys Leu Asp Asn
 165 170 175

Phe Tyr Cys Asp Val Pro Gln Leu Ile Lys Leu Ala Cys Thr Asp Thr
 180 185 190

Phe Val Leu Glu Leu Leu Met Val Ser Asn Asn Gly Leu Val Thr Leu
 195 200 205

Met Cys Phe Leu Val Leu Leu Gly Ser Tyr Thr Ala Leu Leu Val Met
 210 215 220

Leu Arg Ser His Ser Arg Glu Gly Arg Ser Lys Ala Leu Ser Thr Cys
 225 230 235 240

Ala Ser His Ile Ala Val Val Thr Leu Ile Phe Val Pro Cys Ile Tyr
 245 250 255

Val Tyr Thr Arg Pro Phe Arg Thr Phe Pro Met Asp Lys Ala Val Ser
 260 265 270

Val Leu Tyr Thr Ile Val Thr Pro Met Leu Asn Pro Ala Ile Tyr Thr
 275 280 285

Leu Arg Asn Lys Glu Val Ile Met Ala Met Lys Lys Leu Trp Arg Arg
 290 295 300

Lys Lys Asp Pro Ile Gly Pro Leu Glu His Arg Pro Leu His
305 310 315

<210> 21
<211> 1012
<212> DNA
<213> Homo sapiens

<400> 21
aaacacttct cctaaaccat gagcattaac ttgatttcct ctgtcatagg gatatggag 60
acaatataac atccatcaca gagttccctcc tactgggatt tcccggtggc ccaaggattc 120
agatgtcctt ctttgggctc ttctccctgt tctacgtctt caccctgtcg gggAACggga 180
ccatactggg gtcatctca ctggactcca gactgcacgc ccccatgtac ttcttcctct 240
cacacctggc ggtcgctcgac atgcctacg cctgcaacac ggtgccccgg atgtggta 300
accccttgca tccagccaag cccatctctt ttgcgggccc catgatgcag acctttctgt 360
tttccacttt tgctgtcaca gaatgtctcc ttctgggtgt gatgtcctat gatctgtacg 420
tggccatctg ccaccccttc cgatatttgg ccatcatgac ctggagagtc tgcatcaccc 480
tcgggtgac ttcttgacc actggagttc ttttatcctt gattcatctt gtgttacttc 540
taccttacc cttctgttagg ccccagaaaa tttatcactt ttttggtaa atcttggct 600
ttctcaaact tgctgtgca gatacccaca tcaatgagaa catggcttgc gccggagcaa 660
tttctggct ggtgggaccc ttgtccacaa ttgttagttc atatatgtgc atcctctgt 720
ctatcctca gatccaatca agggaaagttc agaggaaagc cttctgcacc tgcttctccc 780
acctctgtgt gattggactc ttttatgca cagcattat catgtatgtt ggacccagat 840
atggaaaccc caaggagcag aagaaatatc tcctgctgtt tcacagcctc ttaatccca 900
tgctcaatcc ccttatctgt agtcttagga actcagaagt gaagaatact ttgaagagag 960
tgctggaggt agaaaggcgtt ttagaaag gattatggca ttgtgactga ca 1012

<210> 22
<211> 310
<212> PRT
<213> Homo sapiens

<400> 22
Met Gly Asp Asn Ile Thr Ser Ile Thr Glu Phe Leu Leu Leu Gly Phe
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
 65 70 75 80

 Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg
 85 90 95

 Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu
 100 105 110

 Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro
 115 120 125

 Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala
 130 135 140

 Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val
 145 150 155 160

 Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe
 165 170 175

 Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His
 180 185 190

 Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly
 195 200 205

 Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile
 210 215 220

 Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Cys Thr Cys
 225 230 235 240

 Phe Ser His Leu Cys Val Ile Gly Leu Phe Tyr Gly Thr Ala Ile Ile
 245 250 255

 Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr
 260 265 270

 Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
 275 280 285

 Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
 290 295 300

 Gly Val Glu Arg Ala Leu
 305 310

<210> 23
<211> 1014
<212> DNA
<213> Homo sapiens

<400> 23
taaacacttc tcctaaacca tgagcattaa cttgattcc tctgtcatag ggatatgggg 60
gacaatataa catccatcac agagttcctc ctactggat ttcccggtgg cccaaggatt 120
cagatgctcc tctttggct cttctccctg ttctacgtct tcaccctgtct gggaaacggg 180
accatactgg ggctcatctc actggactcc agactgcacg cccctgtac ttcttctct 240
cacacctggc ggtcgtcgac atgcctacg cctgcaacac ggtgccccgg atgctggta 300
acctccgtca tccagccaag cccatctcct ttgcgggccc catgatgcag acctttctgt 360
tttccacttt tgcgtcaca gaatgtctcc ttctgggtgt gatgtcctat gatgtgtacg 420
tggccatctg ccacccctc cgatatttgg ccatcatgac ctggagagtc tgcacatccc 480
tcgcgggtgac ttcctggacc actggagtcc ttttacccctt gattcatctt gtgttacttc 540
tacctttacc cttctgttagg ccccgaaaaa tttatcaatt tttttgtga aatcttggct 600
gttctcaaac ttgcctgtgc agataccac atcaatgaga acatggctt ggccggagca 660
atttctgggc tggtgggacc ttgtccaca atttagttt catatatgtg catccctgt 720
gctatccttc agatccaatc aaggaaagt cagaggaaag cttctgcac ctgcttctcc 780
cacctctgtg tgattggact ctttatggc acagccatta tcatgtatgt tggaccaga 840
tatggaaacc ccaaggagca gaagaaatat ctccgtctgt ttcacagcct cttaatccc 900
atgctcaatc cccttatctg tagtcttagg aactcagaag tgaagaatac tttgaagaga 960
gtgctggag tagaaaggc tttatgaaaa ggattatggc attgtgactg acaa 1014

<210> 24
<211> 310
<212> PRT
<213> Homo sapiens

<400> 24
Met Gly Asp Asn Ile Thr Ser Ile Thr Glu Phe Leu Leu Leu Gly Phe
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg

85

90

95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu
100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro
115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala
130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val
145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe
165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His
180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly
195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile
210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Cys Thr Cys
225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Phe Tyr Gly Thr Ala Ile Ile
245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr
260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
290 295 300

Gly Val Glu Arg Ala Leu
305 310

<210> 25

<211> 908

<212> DNA

<213> Homo sapiens

<400> 25

tgtatctggt cacggtgctg aggaacctgc tcagcatcct ggctgtcagc tctgactccc 60
accccccacac acccatgtac ttcttcctct ccaacctgtg ctgggctgac atcggttca 120
ccttggccac ggttccaaag atgattgtgg acatgggtc gcatagcaga gtcatcttt 180
atgagggctg cctgacacag atgtctttct ttgtcctttt tgcatgtata gaagacatgc 240
tcctgactgt gatggcctat gaccaatttg tggccatctg tcacccctg cactacccag 300
tcatcatgaa tcctcacctc tgtgtcttct tagttttgtt ttctttttc cttagcctgt 360
tggattccca gctgcacagt tggattgtgt tacaattcac cttcttcaag aatgtggaaa 420
tctctaattt tttctgtat ccatctcaac ttctcaacct tgcctgttct gacggcatca 480
tcaatagcat attcatatat ttagatagta ttctgttcag ttttcttccc atttcaggaa 540
tcctttgtc ttactataaa attgtccctt ccattctaag aatttcatcg tcagatggaa 600
agtataaagc cttctccatc tgggtcttc acctggcagt tgggtctta ttttatggaa 660
caggcattgg cgtgtaccta acttcagctg tgcaccacc ccccaggaat ggtgtgggtgg 720
cgtcagtatc gtatgtgtg gtcaccccca tgctgaaccc tttcatctac agcctgagaa 780
acagggatatac acaaagtgtc ctgcggaggc tgcagcag aacagtcgaa tctcatgata 840
tgttccatcc ttttcttgt gtgggtgaga aaggcaacc acattaaatc tctacatctg 900
taaaatcct 908

<210> 26

<211> 270

<212> PRT

<213> Homo sapiens

<400> 26

Met Tyr Phe Phe Leu Ser Asn Leu Cys Trp Ala Asp Ile Gly Phe Thr
1 5 10 15

Leu Ala Thr Val Pro Lys Met Ile Val Asp Met Gly Ser His Ser Arg
20 25 30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu
35 40 45

Phe Ala Cys Ile Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp Gln
50 55 60

Phe Val Ala Ile Cys His Pro Leu His Tyr Pro Val Ile Met Asn Pro
65 70 75 80

His Leu Cys Val Phe Leu Val Leu Ser Phe Phe Leu Ser Leu Leu
85 90 95

Asp Ser Gln Leu His Ser Trp Ile Val Leu Gln Phe Thr Phe Phe Lys
100 105 110

Asn Val Glu Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu Asn			
115	120	125	
Leu Ala Cys Ser Asp Gly Ile Ile Asn Ser Ile Phe Ile Tyr Leu Asp			
130	135	140	
Ser Ile Leu Phe Ser Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser Tyr			
145	150	155	160
Tyr Lys Ile Val Pro Ser Ile Leu Arg Ile Ser Ser Ser Asp Gly Lys			
165	170	175	
Tyr Lys Ala Phe Ser Ile Cys Gly Ser His Leu Ala Val Val Cys Leu			
180	185	190	
Phe Tyr Gly Thr Gly Ile Gly Val Tyr Leu Thr Ser Ala Val Ser Pro			
195	200	205	
Pro Pro Arg Asn Gly Val Val Ala Ser Val Met Tyr Ala Val Val Thr			
210	215	220	
Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Arg Asp Ile Gln			
225	230	235	240
Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp Met			
245	250	255	
Phe His Pro Phe Ser Cys Val Gly Glu Lys Gly Gln Pro His			
260	265	270	

<210> 27
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 27			
Met Ser Gly Thr Asn Gln Ser Ser Val Ser Glu Phe Leu Leu Gly			
1	5	10	15
Leu Ser Arg Gln Pro Gln Gln His Leu Leu Phe Val Phe Phe Leu			
20	25	30	
Ser Met Tyr Leu Ala Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ser			
35	40	45	
Val Ser Ile Asp Ser Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ser			
50	55	60	

Asn	Leu	Ser	Phe	Val	Asp	Ile	Cys	Phe	Ser	Phe	Thr	Thr	Val	Pro	Lys
65														80	
Met	Leu	Ala	Asn	His	Ile	Leu	Glu	Thr	Gln	Thr	Ile	Ser	Phe	Cys	Gly
														95	
Cys	Leu	Thr	Gln	Met	Tyr	Phe	Val	Phe	Met	Phe	Val	Asp	Met	Asp	Asn
														110	
Phe	Leu	Leu	Ala	Val	Met	Ala	Tyr	Asp	His	Phe	Val	Ala	Val	Cys	His
														125	
Pro	Leu	His	Tyr	Thr	Ala	Lys	Met	Thr	His	Gln	Leu	Cys	Ala	Leu	Leu
														130	
Val	Ala	Gly	Leu	Trp	Val	Val	Ala	Asn	Leu	Asn	Val	Leu	Leu	His	Thr
														145	
Leu	Leu	Met	Ala	Pro	Leu	Ser	Phe	Cys	Ala	Asp	Asn	Ala	Ile	Thr	His
														160	
165			170											175	
Phe	Phe	Cys	Asp	Val	Thr	Pro	Leu	Leu	Lys	Leu	Ser	Cys	Ser	Asp	Thr
														180	
185														190	
His	Leu	Asn	Glu	Val	Ile	Ile	Leu	Ser	Glu	Gly	Ala	Leu	Val	Met	Ile
														195	
200														205	
Thr	Pro	Phe	Leu	Cys	Ile	Leu	Ala	Ser	Tyr	Met	His	Ile	Thr	Cys	Thr
														210	
215														220	
Val	Leu	Lys	Val	Pro	Ser	Thr	Lys	Gly	Arg	Trp	Lys	Ala	Phe	Ser	Thr
														225	
230														240	
Cys	Gly	Ser	His	Leu	Ala	Val	Val	Leu	Phe	Tyr	Ser	Thr	Ile	Ile	
														245	
250														255	
Ala	Val	Tyr	Phe	Asn	Pro	Leu	Ser	Ser	His	Ser	Ala	Glu	Lys	Asp	Thr
														260	
265														270	
Met	Ala	Thr	Val	Leu	Tyr	Thr	Val	Val	Thr	Pro	Met	Leu	Asn	Pro	Phe
														275	
280														285	
Ile	Tyr	Ser	Leu	Arg	Asn	Arg	Tyr	Leu	Lys	Gly	Ala	Leu	Lys	Lys	Val
														290	
295														300	
Val	Gly	Arg													
														305	

<210> 28
<211> 307
<212> PRT
<213> Homo sapiens

<400> 28
Met Glu Gly Lys Asn Gln Thr Asn Ile Ser Glu Phe Leu Leu Leu Gly
1 5 10 15

Phe Ser Ser Trp Gln Gln Gln Val Leu Leu Phe Ala Leu Phe Leu
20 25 30

Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala
35 40 45

Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala
50 55 60

Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys
65 70 75 80

Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly
85 90 95

Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn
100 105 110

Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
115 120 125

Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu
130 135 140

Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr
145 150 155 160

Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His
165 170 175

Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr
180 185 190

Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val
195 200 205

Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala

210

215

220

Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr
225 230 235 240

Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Ile Thr
245 250 255

Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser
260 265 270

Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe
275 280 285

Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly Thr Leu Lys Lys Thr
290 295 300

Leu Ser Arg

305

<210> 29

<211> 299

<212> PRT

<213> Homo sapiens

<400> 29

Met Glu Gly Lys Asn Gln Thr Asn Ile Ser Glu Phe Leu Leu Leu Gly
1 5 10 15

Phe Ser Ser Trp Gln Gln Gln Val Leu Leu Phe Ala Leu Phe Leu
20 25 30

Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala
35 40 45

Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala
50 55 60

Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys
65 70 75 80

Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly
85 90 95

Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn
100 105 110

Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
115 120 125

Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu
130 135 140

Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr
145 150 155 160

Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His
165 170 175

Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr
180 185 190

Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val
195 200 205

Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala
210 215 220

Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr
225 230 235 240

Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Ile Thr
245 250 255

Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser
260 265 270

Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe
275 280 285

Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly
290 295

<210> 30
<211> 299
<212> PRT
<213> Homo sapiens

<400> 30
Met Ser Gly Thr Asn Gln Ser Ser Val Ser Glu Phe Leu Leu Gly
1 5 10 15

Leu Ser Arg Gln Pro Gln Gln His Leu Leu Phe Val Phe Phe Leu
20 25 30

Ser Met Tyr Leu Ala Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ser
 35 40 45

 Val Ser Ile Asp Ser Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ser
 50 55 60

 Asn Leu Ser Phe Val Asp Ile Cys Phe Ser Phe Thr Thr Val Pro Lys
 65 70 75 80

 Met Leu Ala Asn His Ile Leu Glu Thr Gln Thr Ile Ser Phe Cys Gly
 85 90 95

 Cys Leu Thr Gln Met Tyr Phe Val Phe Met Phe Val Asp Met Asp Asn
 100 105 110

 Phe Leu Leu Ala Val Met Ala Tyr Asp His Phe Val Ala Val Cys His
 115 120 125

 Pro Leu His Tyr Thr Ala Lys Met Thr His Gln Leu Cys Ala Leu Leu
 130 135 140

 Val Ala Gly Leu Trp Val Val Ala Asn Leu Asn Val Leu Leu His Thr
 145 150 155 160

 Leu Leu Met Ala Pro Leu Ser Phe Cys Ala Asp Asn Ala Ile Thr His
 165 170 175

 Phe Phe Cys Asp Val Thr Pro Leu Leu Lys Leu Ser Cys Ser Asp Thr
 180 185 190

 His Leu Asn Glu Val Ile Ile Leu Ser Glu Gly Ala Leu Val Met Ile
 195 200 205

 Thr Pro Phe Leu Cys Ile Leu Ala Ser Tyr Met His Ile Thr Cys Thr
 210 215 220

 Val Leu Lys Val Pro Ser Thr Lys Gly Arg Trp Lys Ala Phe Ser Thr
 225 230 235 240

 Cys Gly Ser His Leu Ala Val Val Leu Leu Phe Tyr Ser Thr Ile Ile
 245 250 255

 Ala Val Tyr Phe Asn Pro Leu Ser Ser His Ser Ala Glu Lys Asp Thr
 260 265 270

 Met Ala Thr Val Leu Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe
 275 280 285

Ile Tyr Ser Leu Arg Asn Arg Tyr Leu Lys Gly
290 295

<210> 31
<211> 189
<212> PRT
<213> Homo sapiens

<400> 31
Ala Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu
1 5 10 15

Ala Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro
20 25 30

Lys Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro
35 40 45

Gly Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp
50 55 60

Asn Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
65 70 75 80

His Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser
85 90 95

Leu Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His
100 105 110

Thr Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His
115 120 125

His Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp
130 135 140

Thr Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe
145 150 155 160

Val Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser
165 170 175

Ala Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys
180 185

<210> 32
<211> 170
<212> PRT
<213> Homo sapiens

<400> 32

Ala	Val	Ser	Arg	Glu	Lys	Ala	Leu	Gln	Thr	Thr	Thr	Asn	Tyr	Leu	Ile
1									10						15
Val	Ser	Leu	Ala	Val	Ala	Asp	Leu	Leu	Val	Ala	Thr	Leu	Val	Met	Pro
									20						30
Trp	Val	Val	Tyr	Leu	Glu	Val	Val	Gly	Glu	Trp	Lys	Phe	Ser	Arg	Ile
									35						45
His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp	Val	Met	Met	Cys	Thr	Ala	Ser
									50						60
Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile	Asp	Arg	Tyr	Thr	Ala	Val	Ala
									65						80
Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr	Ser	Ser	Lys	Arg	Arg	Val	Thr
									85						95
Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu	Ser	Phe	Thr	Ile	Ser	Cys	Pro
									100						110
Met	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp	Gln	Asn	Glu	Cys	Ile	Ile	Ala
									115						125
Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser	Ile	Val	Ser	Phe	Tyr	Val	Pro
									130						140
Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile	Lys	Ile	Tyr	Ile	Val	Leu	Arg
									145						160
Arg	Arg	Arg	Lys	Arg	Val	Asn	Thr	Lys	Arg						
									165						170

<210> 33
<211> 92
<212> DNA
<213> Homo sapiens

<400> 33

gggcgcggtg	gctcacgcct	gtaatccag	cacttggga	ggccgaggcg	ggtgatcat	60
gaggtcagga	gatcgagacc	atcctggcta	ac			92

<210> 34
<211> 1040
<212> DNA
<213> Homo sapiens

<400> 34
ccgaacaagt taaaatgaat ctgttttaa acacttctcc taaaccatga gcattaactt 60
gatttcctct gtcataggga tatggagac aatataacat ccatcagaga gttcctccta 120
ctgggatttc ccgttggccc aaggatttag atgctcctct ttgggctctt ctccctgttc 180
tacgtcttca ccctgctggg gaacgggacc atactgggc tcatctcaact ggactccaga 240
ctgcacgccc ccatgtactt cttcctctca cacctggcg tcgtcgacat cgcctacgcc 300
tgcaacacgg tgccccggat gctggtaac ctccgtcattt cagccaagcc catctccttt 360
gcgggcccga tgatgcagac ctttctgttt tccacttttgcgtcagaga atgtctcctc 420
ctgggtgtga tgccttatga tctgtacgtg gccatctgcc accccctccg atatttggcc 480
atcatgaccc ggagagtctg catcaccctc gcgggtgactt cctggaccac tggagtcctt 540
ttatccttga ttcatcttgcgtt gttacttcta ccttaccct tctgttaggccc ccagaaaatt 600
tatcaactttttt tttgtgaaat cttggctgtt ctcaaaacttgcgtcagaga taccacatc 660
aatgagaaca tggcttggc cggagcaatt tctgggctgg tgggaccctt gtccacaatt 720
gtagtttcat atatgtcat cctctgtgt atccttcaga tccaatcaag ggaagttcag 780
aggaaagcct tccgcacctg cttctccac ctctgtgtga ttggactcgat ttatggcaca 840
gccattatca tggatgttgg acccagat gggaaacccca aggagcagaa gaaatatctc 900
ctgctgttc acagcctctt taatcccattt ctcaatcccc ttatctgttag tcttaggaac 960
tcagaagtga agaataactt gaagagagtg ctgggagtag aaaggctttt atgaaaagga 1020
ttatggcatt gtgactgaca 1040

<210> 35
<211> 260
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (152)..(165)
<223> Wherein Xaa is any amino acid.

<400> 35
Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala
1 5 10 15

Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val
20 25 30

Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met
35 40 45

Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu
50 55 60

Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg
65 70 75 80

Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr
85 90 95

Ser Trp Thr Thr Gly Val Xaa
100 105 110

Xaa Xaa Xaa Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys
115 120 125

Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn
130 135 140

Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu
145 150 155 160

Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln
165 170 175

Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys Phe Ser
180 185 190

His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile Met Tyr
195 200 205

Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr Leu Leu
210 215 220

Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile Cys Ser
225 230 235 240

Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu Gly Val
245 250 255

Glu Arg Ala Leu
260

<210> 36
<211> 260
<212> PRT
<213> Homo sapiens

<400> 36

Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala
1 5 10 15

Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val
20 25 30

Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met
35 40 45

Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu
50 55 60

Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg
65 70 75 80

Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr
85 90 95

Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu
100 105 110

Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys
115 120 125

Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn
130 135 140

Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu
145 150 155 160

Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln
165 170 175

Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys Phe Ser
180 185 190

His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile Met Tyr
195 200 205

Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr Leu Leu
210 215 220

Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile Cys Ser
225 230 235 240

Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu Gly Val
245 250 255

Glu Arg Ala Leu
260

<210> 37
<211> 92
<212> DNA
<213> Homo sapiens

<400> 37
ggatgcggtg gctcacgcct gtaatcccag cacttggga ggccgaggtg ggcggatcat 60
gaggtcagg ttgcagacc aacctggtca ac 92

<210> 38
<211> 310
<212> PRT
<213> Homo sapiens

<400> 38
Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg
85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu
100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro
115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala
130 135 140

Val	Thr	Ser	Trp	Thr	Thr	Gly	Val	Leu	Leu	Ser	Leu	Ile	His	Leu	Val
145							150					155			160
Leu	Leu	Leu	Pro	Leu	Pro	Phe	Cys	Arg	Pro	Gln	Lys	Ile	Tyr	His	Phe
							165					170			175
Phe	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His
							180					185			190
Ile	Asn	Glu	Asn	Met	Val	Leu	Ala	Gly	Ala	Ile	Ser	Gly	Leu	Val	Gly
							195					200			205
Pro	Leu	Ser	Thr	Ile	Val	Val	Ser	Tyr	Met	Cys	Ile	Leu	Cys	Ala	Ile
							210					215			220
Leu	Gln	Ile	Gln	Ser	Arg	Glu	Val	Gln	Arg	Lys	Ala	Phe	Arg	Thr	Cys
							225					230			240
Phe	Ser	His	Leu	Cys	Val	Ile	Gly	Leu	Val	Tyr	Gly	Thr	Ala	Ile	Ile
							245					250			255
Met	Tyr	Val	Gly	Pro	Arg	Tyr	Gly	Asn	Pro	Lys	Glu	Gln	Lys	Lys	Tyr
							260					265			270
Leu	Leu	Leu	Phe	His	Ser	Leu	Phe	Asn	Pro	Met	Leu	Asn	Pro	Leu	Ile
							275					280			285
Cys	Ser	Leu	Arg	Asn	Ser	Glu	Val	Lys	Asn	Thr	Leu	Lys	Arg	Val	Leu
							290					295			300
Gly	Val	Glu	Arg	Ala	Leu										
							305					310			

<210> 39
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 39
 Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val
 1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu
 20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr
 35 40 45

Phe	Leu	Phe	Ser	Thr	Phe	Ala	Val	Thr	Glu	Cys	Leu	Leu	Leu	Val	Val
50					55						60				
Met	Ser	Tyr	Asp	Leu	Tyr	Val	Ala	Ile	Cys	His	Pro	Leu	Arg	Tyr	Leu
65				70						75				80	
Ala	Ile	Met	Thr	Trp	Arg	Val	Cys	Ile	Thr	Leu	Ala	Val	Thr	Ser	Trp
				85				90					95		
Thr	Thr	Gly	Val	Leu	Leu	Ser	Leu	Ile	His	Leu	Val	Leu	Leu	Pro	
				100				105				110			
Leu	Pro	Phe	Cys	Arg	Pro	Gln	Lys	Ile	Tyr	His	Phe	Phe	Cys	Glu	Ile
				115				120				125			
Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His	Ile	Asn	Glu	Asn
				130				135				140			
Met	Val	Leu	Ala	Gly	Ala	Ile	Ser	Gly	Leu	Val	Gly	Pro	Leu	Ser	Thr
145					150				155				160		
Ile	Val	Val	Ser	Tyr	Met	Cys	Ile	Leu	Cys	Ala	Ile	Leu	Gln	Ile	Gln
				165				170					175		
Ser	Arg	Glu	Val	Gln	Arg	Lys									
			180												

<210> 40

<211> 164

<212> PRT

<213> Homo sapiens

<400> 40

Ala	Leu	Gln	Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	Ala
1								10				15		

Asp	Leu	Leu	Val	Ala	Thr	Leu	Val	Met	Pro	Trp	Val	Val	Tyr	Leu	Glu
								20			25			30	

Val	Val	Gly	Glu	Trp	Lys	Phe	Ser	Arg	Ile	His	Cys	Asp	Ile	Phe	Val
								35			40			45	

Thr	Leu	Asp	Val	Met	Met	Cys	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Ala
								50			55			60	

Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn

65	70	75	80
Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val			
85	90	95	
Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn			
100	105	110	
Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val			
115	120	125	
Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu			
130	135	140	
Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val			
145	150	155	160
Asn Thr Lys Arg			

<210> 41
 <211> 94
 <212> DNA
 <213> Homo sapiens

<400> 41
 cggggcgccgg tggctcacgc ctgtaatccc agcactttgg gaggccgagg cgggtggatc 60
 atgaggtcag gagatcgaga ccattctggc taac 94

<210> 42
 <211> 1090
 <212> DNA
 <213> Homo sapiens

<400> 42
 aagaagttct tcagatgcga gtttcaaca aaaccactgt gtttacacag ttcattctgg 60
 tgggttctc cagcctgggg gagctccagc tgctgtttt tgcattttt cttctctat 120
 acttgacaat cctggggcc aatgtgacca tcatggccgt tattcgcttc agctggactc 180
 tccacactcc catgtatggc tttctattca tccttcatt ttctgagttc tgctacactt 240
 ttgtcatcat ccctcagctg ctggccacc tgcttcaga caccaagacc attcattca 300
 tggcctgtgc caccctgtc ttctttcc ttggcttgc ttgcaccaac tgcctctca 360
 ttgctgtgtat gggatatgtat cgctatgtat caattttgtca ccctctgagg tacacactca 420
 tcataaaacaa aaggctgggg ttggagttga tttctcttc aggagccaca gttttttta 480
 ttgcttttgtt ggccaccaac ctcattttgtc acatgcgttt ttgtggcccc aacagggtta 540
 accactattt ctgtgacatg gcacctgtta tcaagttgc ctgcactgac acccatgtga 600
 aagagctggc tttatattgc ctcagcatcc tggtaattat ggtgcctttt ctgttaattc 660

tcatatccta tggcttcata gttaacacca tcctgaagat cccctcagct gagggcaaga 720
aggccttgc cacctgtgcc tcacatctca ctgtggctt tgtccactat ggctgtgcct 780
ctatcatcta tctgcggccc aagtccaagt ctgcctcaga caaggatcag ttggtggcag 840
tgacctacac agtggtaact cccttactta atcctctgt ctacagtctg aggaacaaag 900
aggtaaaaac tgcattgaaa agagttcttg gaatgcctgt ggcaaccaag atgagctaac 960
aaaaaaataat aataaaatta actaggatag tcacagaaga aatcaaaggc ataaaatttt 1020
ctgaccttta atgcatgtct cagacagtgt ttccaaggat taagactact cttgccttt 1080
tattttctcc 1090

<210> 43
<211> 303
<212> PRT
<213> Homo sapiens

<400> 43
Met Arg Gly Phe Asn Lys Thr Thr Val Val Thr Gln Phe Ile Leu Val
1 5 10 15

Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
20 25 30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
35 40 45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
50 55 60

Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
65 70 75 80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Phe Met
85 90 95

Ala Cys Ala Thr Gln Leu Phe Phe Leu Gly Phe Ala Cys Thr Asn
100 105 110

Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys
115 120 125

His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu
130 135 140

Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala
145 150 155 160

Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn
165 170 175

His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp
180 185 190

Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile
195 200 205

Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn
210 215 220

Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Gly Cys Ala Ser
245 250 255

Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln
260 265 270

Leu Val Ala Val Thr Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu
275 280 285

Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg
290 295 300

<210> 44
<211> 304
<212> PRT
<213> Homo sapiens

<400> 44
Met Leu Gly Leu Asn His Thr Ser Met Ser Glu Phe Ile Leu Val Gly
1 5 10 15

Phe Ser Ala Phe Pro His Leu Gln Leu Met Leu Phe Leu Leu Phe Leu
20 25 30

Leu Met Tyr Leu Phe Thr Leu Leu Gly Asn Leu Leu Ile Met Ala Thr
35 40 45

Val Trp Ser Glu Arg Ser Leu His Thr Pro Met Tyr Leu Phe Leu Cys
50 55 60

Val Leu Ser Val Ser Glu Ile Leu Tyr Thr Val Ala Ile Ile Pro Arg
65 70 75 80

Met Leu Ala Asp Leu Leu Ser Thr Gln Arg Ser Ile Ala Phe Leu Ala

85	90	95
Cys Ala Ser Gln Met Phe Phe Ser Phe Ser Phe Gly Phe Thr His Ser		
100		110
Phe Leu Leu Thr Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys His		
115	120	125
Pro Leu Arg Tyr Asn Val Leu Met Ser Pro Arg Gly Cys Ala Cys Leu		
130	135	140
Val Gly Cys Ser Trp Ala Gly Gly Ser Val Met Gly Met Val Val Thr		
145	150	155
Ser Ala Ile Phe Gln Leu Thr Phe Cys Gly Ser His Glu Ile Gln His		
165	170	175
Phe Leu Cys His Val Pro Pro Leu Leu Lys Leu Ala Cys Gly Asn Asn		
180	185	190
Val Pro Ala Val Ala Leu Gly Val Gly Leu Val Cys Ile Met Ala Leu		
195	200	205
Leu Gly Gly Phe Leu Leu Ile Leu Leu Ser Tyr Ala Phe Ile Val Ala		
210	215	220
Asp Ile Leu Lys Ile Pro Ser Ala Glu Gly Arg Asn Lys Ala Phe Ser		
225	230	235
Thr Cys Ala Ser His Leu Ile Val Val Ile Val His Tyr Gly Phe Ala		
245	250	255
Ser Val Ile Tyr Leu Lys Pro Lys Gly Pro His Ser Gln Glu Gln Asp		
260	265	270
Thr Leu Met Ala Thr Thr Tyr Ala Val Leu Thr Pro Phe Leu Ser Pro		
275	280	285
Ile Ile Phe Ser Leu Arg Asn Lys Glu Leu Lys Val Ala Met Lys Arg		
290	295	300

<210> 45
 <211> 187
 <212> PRT

<213> Homo sapiens

<400> 45

Asn Val Thr Ile Met Ala Val Ile Arg Phe Ser Trp Thr Leu His Thr
1 5 10 15

Pro Met Tyr Gly Phe Leu Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr
20 25 30

Thr Phe Val Ile Ile Pro Gln Leu Leu Val His Leu Leu Ser Asp Thr
35 40 45

Lys Thr Ile Ser Phe Met Ala Cys Ala Thr Gln Leu Phe Phe Leu
50 55 60

Gly Phe Ala Cys Thr Asn Cys Leu Leu Ile Ala Val Met Gly Tyr Asp
65 70 75 80

Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Thr Leu Ile Ile Asn
85 90 95

Lys Arg Leu Gly Leu Glu Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe
100 105 110

Phe Ile Ala Leu Val Ala Thr Asn Leu Ile Cys Asp Met Arg Phe Cys
115 120 125

Gly Pro Asn Arg Val Asn His Tyr Phe Cys Asp Met Ala Pro Val Ile
130 135 140

Lys Leu Ala Cys Thr Asp Thr His Val Lys Glu Leu Ala Leu Phe Ser
145 150 155 160

Leu Ser Ile Leu Val Ile Met Val Pro Phe Leu Leu Ile Leu Ile Ser
165 170 175

Tyr Gly Phe Ile Val Asn Thr Ile Leu Lys Ile
180 185

<210> 46

<211> 168

<212> PRT

<213> Homo sapiens

<400> 46

Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln Thr
1 5 10 15

Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	Ala	Asp	Leu	Leu	Val
					20			25			30				
Ala	Thr	Leu	Val	Met	Pro	Trp	Val	Val	Tyr	Leu	Glu	Val	Val	Gly	Glu
					35			40			45				
Trp	Lys	Phe	Ser	Arg	Ile	His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp	Val
					50			55			60				
Met	Met	Cys	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile	Asp
					65			70			75			80	
Arg	Tyr	Thr	Ala	Val	Ala	Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr	Ser
					85			90			95				
Ser	Lys	Arg	Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu	Ser
					100			105			110				
Phe	Thr	Ile	Ser	Cys	Pro	Met	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp	Gln
					115			120			125				
Asn	Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser	Ile
					130			135			140				
Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile	Lys
					145			150			155			160	
Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg								
					165										

<210> 47
 <211> 96
 <212> DNA
 <213> Homo sapiens

<400> 47
 ctgggctcgg tggctcacac gtgtaatccc agcactttgg gaggccgagg cgggcggatc 60
 acatgaggtc aggagttcga gaccagcctg gtcaac 96

<210> 48
 <211> 94
 <212> DNA
 <213> Homo sapiens

<400> 48

gttagccagg atggtctcga tctcctgacc tcatgatcca cccgcctcgg cctcccaaag 60
tgctgggatt acaggcgtga gccaccgcgc ccgg 94

<210> 49
<211> 299
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (190)..(202)
<223> Wherein Xaa is any amino acid.

<400> 49

Thr	Leu	Ile	Thr	Asp	Phe	Val	Phe	Gln	Gly	Phe	Ser	Ser	Phe	His	Glu
1			5				10						15		

Gln Gln Ile Thr Leu Phe Gly Val Phe Leu Ala Leu Tyr Ile Leu Thr
20 25 30

Leu Ala Gly Asn Ile Ile Val Thr Ile Ile Arg Ile Asp Leu His
35 40 45

Leu His Thr Pro Met Tyr Phe Phe Leu Ser Met Leu Ser Thr Ser Glu
50 55 60

Thr Val Tyr Thr Leu Val Ile Leu Pro Arg Met Leu Ser Ser Leu Val
65 70 75 80 *

Gly Met Ser Gln Pro Met Ser Leu Ala Gly Cys Ala Thr Gln Met Phe
85 90 95

Phe Phe Val Thr Phe Gly Ile Thr Asn Cys Phe Leu Leu Thr Ala Met
100 105 110

Gly Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro Leu Arg Tyr Met Val
115 120 125

Ile Met Asn Lys Arg Leu Arg Ile Gln Leu Val Leu Gly Ala Cys Ser
130 135 140

Ile Gly Leu Ile Val Ala Ile Thr Gln Val Thr Ser Val Phe Arg Leu
145 150 155 160

Pro Phe Cys Ala Arg Lys Val Pro His Phe Phe Cys Asp Ile Arg Pro
165 170 175

Val Met Lys Leu Ser Cys Ile Asp Thr Thr Val Asn Glu Xaa Xaa Xaa		
180	185	190
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Met Gly Leu Val Phe		
195	200	205
Ile Ser Tyr Val Leu Ile Ile Ser Thr Ile Leu Lys Ile Ala Ser Val		
210	215	220
Glu Gly Arg Lys Lys Ala Phe Ala Thr Cys Ala Ser His Leu Thr Val		
225	230	235
240		
Val Ile Val His Tyr Ser Cys Ala Ser Ile Ala Tyr Leu Lys Pro Lys		
245	250	255
Ser Glu Asn Thr Arg Glu His Asp Gln Leu Ile Ser Val Thr Tyr Thr		
260	265	270
Val Ile Thr Pro Leu Leu Asn Pro Val Val Tyr Thr Leu Arg Asn Lys		
275	280	285
Glu Val Lys Asp Ala Leu Cys Arg Ala Val Gly		
290	295	

<210> 50
 <211> 299
 <212> PRT
 <213> Homo sapiens

<400> 50			
Thr Val Val Thr Gln Phe Ile Leu Val Gly Phe Ser Ser Leu Gly Glu			
1	5	10	15
Leu Gln Leu Leu Leu Phe Val Ile Phe Leu Leu Leu Tyr Leu Thr Ile			
20	25	30	
Leu Val Ala Asn Val Thr Ile Met Ala Val Ile Arg Phe Ser Trp Thr			
35	40	45	
Leu His Thr Pro Met Tyr Gly Phe Leu Phe Ile Leu Ser Phe Ser Glu			
50	55	60	
Ser Cys Tyr Thr Phe Val Ile Ile Pro Gln Leu Leu Val His Leu Leu			
65	70	75	80
Ser Asp Thr Lys Thr Ile Ser Leu Met Ala Cys Ala Thr Gln Leu Phe			
85	90	95	

Phe	Phe	Leu	Gly	Phe	Ala	Cys	Thr	Asn	Cys	Leu	Leu	Ile	Ala	Val	Met
100														110	
Gly Tyr Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Thr Leu															
115							120						125		
Ile Ile Asn Lys Arg Leu Gly Leu Glu Leu Ile Ser Leu Ser Gly Ala															
130						135						140			
Thr Gly Phe Phe Ile Ala Leu Val Ala Thr Asn Leu Ile Cys Asp Met															
145					150				155			160			
Arg Phe Cys Gly Pro Asn Arg Val Asn His Tyr Phe Cys Asp Met Ala															
165						170						175			
Pro Val Ile Lys Leu Ala Cys Thr Asp Thr His Val Lys Glu Leu Ala															
180						185						190			
Leu Phe Ser Leu Ser Ile Leu Val Ile Met Val Pro Phe Leu Leu Ile															
195					200							205			
Leu Ile Ser Tyr Gly Phe Ile Val Asn Thr Ile Leu Lys Ile Pro Ser															
210					215				220						
Ala Glu Gly Lys Lys Ala Phe Val Thr Cys Ala Ser His Leu Thr Val															
225				230			235					240			
Val Phe Val His Tyr Asp Cys Ala Ser Ile Ile Tyr Leu Arg Pro Lys															
245					250							255			
Ser Lys Ser Ala Ser Asp Lys Asp Gln Leu Val Ala Val Thr Tyr Ala															
260					265				270						
Val Val Thr Pro Leu Leu Asn Pro Leu Val Tyr Ser Leu Arg Asn Lys															
275					280				285						
Glu Val Lys Thr Ala Leu Lys Arg Val Leu Gly															
290					295										

<210> 51
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 51
 Asn Val Thr Ile Met Ala Val Ile Arg Phe Ser Trp Thr Leu His Thr

1	5	10	15
Pro Met Tyr Gly Phe Leu Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr			
20	25	30	
Thr Phe Val Ile Ile Pro Gln Leu Leu Val His Leu Leu Ser Asp Thr			
35	40	45	
Lys Thr Ile Ser Leu Met Ala Cys Ala Thr Gln Leu Phe Phe Leu			
50	55	60	
Gly Phe Ala Cys Thr Asn Cys Leu Leu Ile Ala Val Met Gly Tyr Asp			
65	70	75	80
Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Thr Leu Ile Ile Asn			
85	90	95	
Lys Arg Leu Gly Leu Glu Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe			
100	105	110	
Phe Ile Ala Leu Val Ala Thr Asn Leu Ile Cys Asp Met Arg Phe Cys			
115	120	125	
Gly Pro Asn Arg Val Asn His Tyr Phe Cys Asp Met Ala Pro Val Ile			
130	135	140	
Lys Leu Ala Cys Thr Asp Thr His Val Lys Glu Leu Ala Leu Phe Ser			
145	150	155	160
Leu Ser Ile Leu Val Ile Met Val Pro Phe Leu Leu Ile Leu Ile Ser			
165	170	175	
Tyr Gly Phe Ile Val Asn Thr Ile Leu Lys Ile			
180	185		

<210> 52
 <211> 94
 <212> DNA
 <213> Homo sapiens

<400> 52
 gttagccagg atggctctcaa tctcctgacc tcgtgatccg cctgccttgg cctcccaaag 60
 tgctgggatt acaggcatga gccactgcgc ccgg 94

<210> 53
 <211> 788

<212> DNA
<213> Homo sapiens

<400> 53
cacaccccca tgtgcttctt cctctccaaa ctgtgctcag ctgacatcgg tttcaccttg 60
gccatggttc ccaagatgat tgtgaacatg cagtcgcata gcagagtcat ctcttatgag 120
ggctgcctga cacggatgtc tttctttgtc cttttgtcat gtatggaaga catgctcctg 180
actgtgatgg cctatgactg cttttagcc atctgtcgcc ctctgcacta cccagtcac 240
gtgaatcctc acctctgtgt cttcttcgtc ttgggtgcct tttccttag cccgttggat 300
tcccagctgc acagttggat tgtgttacta ttcaccatca tcaagaatgt ggaatcact 360
aattttgtct gtgaaccctc tcaacttctc aaccttgctt gttctgacag cgtcatcaat 420
aacatattca tatatttcga tagtactatg tttggttttc ttcccatttc agggatcctt 480
ttgtcttact ataaaattgt cccctccatt ctaaggatgt catcgtcaga tgggaagtat 540
aaaggcttcc acacctgtgg ctcttacctg gcagttgttt gtcatttga tggaacagggc 600
attggcatgt acctgacttc agctgtgtca ccacccccc ggaatgggtt ggtggcgtca 660
gtgatgtatg ctgtggtcac ccccatgtct aacctttca tctacagcct aggaaagagg 720
gatacataaaa gtgcctgcg gaggctgtgc agcagaacag tcgaatctca tgatatgttc 780
catccttt 788

<210> 54
<211> 788
<212> DNA
<213> Homo sapiens

<400> 54
cacaccccca tgtgcttctt cctctccaaac ctgtgctggg ctgacatcgg tttcaccttg 60
gccacgggttc ctaagatgat tgtggacatg cagtcgcata ccagagtcat ctcttatgag 120
ggctgcctga cacggatatc tttcttggtc cttttgtcat gtatagaaga catgctcctg 180
actgtgatgg cctatgactg cttttagcc atctgtcgcc ctctgcacta cccagtcac 240
gtgaatcctc acctctgtgt cttcttcctt ttggtatact tttccttag cttgttggat 300
tcccagctgc acagttggat tgtgttacaa ttcaccatca tcaagaatgt ggaatctct 360
aattttgtct gtgacccctc tcaacttctc aaacttgctt gttctgacag cgtcatcaat 420
agcatattca tgtatttcca tagtactatg tttggttttc ttcccatttc agggatcctt 480
ttgtcttact ataaaatcg t cccctccatt ctaaggattt catcatcaga tgggaagtat 540
aaaggcttcc acacctgtgg ctctcacttg gcagttgttt gtcatttta tggaacagggc 600
attggcgtgt acctgacttc agctgtgtca ccacccccc ggaatgggtt ggtagcgtca 660
gtgatgtacg ctgtggtcac ccccatgtct aacctttca tctacagcct gagaaacagg 720
gacatacataaaa gtgcctgcg gaggctgtctc agcagaacag tcgaatctca tgatctgttc 780
catccttt 788

<210> 55
<211> 265
<212> PRT
<213> Homo sapiens

<400> 55

Pro	Met	Cys	Phe	Phe	Leu	Ser	Lys	Leu	Cys	Ser	Ala	Asp	Ile	Gly	Phe
1			5				10							15	
Thr	Leu	Ala	Met	Val	Pro	Lys	Met	Ile	Val	Asn	Met	Gln	Ser	His	Ser
	20				25									30	
Arg	Val	Ile	Ser	Tyr	Glu	Gly	Cys	Leu	Thr	Arg	Met	Ser	Phe	Phe	Val
	35				40									45	
Leu	Phe	Ala	Cys	Met	Glu	Asp	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp
	50				55									60	
Cys	Phe	Val	Ala	Ile	Cys	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn
	65				70									80	
Pro	His	Leu	Cys	Val	Phe	Phe	Val	Leu	Val	Ser	Phe	Phe	Leu	Ser	Pro
		85					90							95	
Leu	Asp	Ser	Gln	Leu	His	Ser	Trp	Ile	Val	Leu	Leu	Phe	Thr	Ile	Ile
		100					105							110	
Lys	Asn	Val	Glu	Ile	Thr	Asn	Phe	Val	Cys	Glu	Pro	Ser	Gln	Leu	Leu
		115					120							125	
Asn	Leu	Ala	Cys	Ser	Asp	Ser	Val	Ile	Asn	Asn	Ile	Phe	Ile	Tyr	Phe
		130					135							140	
Asp	Ser	Thr	Met	Phe	Gly	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Leu	Ser
		145			150									160	
Tyr	Tyr	Lys	Ile	Val	Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly
			165				170							175	
Lys	Tyr	Lys	Gly	Phe	Ser	Thr	Cys	Gly	Ser	Tyr	Leu	Ala	Val	Val	Cys
			180				185							190	
Ser	Phe	Asp	Gly	Thr	Gly	Ile	Gly	Met	Tyr	Leu	Thr	Ser	Ala	Val	Ser
		195				200								205	
Pro	Pro	Pro	Arg	Asn	Gly	Val	Val	Ala	Ser	Val	Met	Tyr	Ala	Val	Val
			210			215								220	
Thr	Pro	Met	Leu	Asn	Leu	Phe	Ile	Tyr	Ser	Leu	Gly	Lys	Arg	Asp	Ile
		225			230									240	
Gln	Ser	Val	Leu	Arg	Arg	Leu	Cys	Ser	Arg	Thr	Val	Glu	Ser	His	Asp
			245			250								255	

Met Phe His Pro Phe Ser Cys Val Gly
260 265

<210> 56
<211> 264
<212> PRT
<213> Homo sapiens

<400> 56
Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe
1 5 10 15

Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser
20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val
35 40 45

Leu Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp
50 55 60

Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn
65 70 75 80

Pro Arg Leu Cys Gly Phe Leu Ile Leu Ser Phe Phe Ile Ser Leu
85 90 95

Leu Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe
100 105 110

Lys Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu
115 120 125

His Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe
130 135 140

Met Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser
145 150 155 160

Tyr Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly
165 170 175

Lys Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys
180 185 190

Leu Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu
195 200 205

Pro	Ser	Pro	Arg	Lys	Ser	Met	Val	Ala	Ser	Val	Met	Tyr	Thr	Val	Val
210						215					220				
Thr	Pro	Met	Leu	Asn	Pro	Phe	Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Ile
225						230				235				240	
Gln	Ser	Ala	Leu	Cys	Arg	Leu	His	Gly	Arg	Ile	Ile	Lys	Ser	His	His
							245			250				255	
Leu	His	Pro	Phe	Cys	Tyr	Met	Gly								
						260									

<210> 57
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 57															
Pro	Met	Cys	Phe	Phe	Leu	Ser	Lys	Leu	Cys	Ser	Ala	Asp	Ile	Gly	Phe
1					5				10				15		

Thr	Leu	Ala	Met	Val	Pro	Lys	Met	Ile	Val	Asn	Met	Gln	Ser	His	Ser
								20			25			30	

Arg	Val	Ile	Ser	Tyr	Glu	Gly	Cys	Leu	Thr	Arg	Met	Ser	Phe	Phe	Val
								35			40			45	

Leu	Phe	Ala	Cys	Met	Glu	Asp	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp
				50				55				60			

Cys	Phe	Val	Ala	Ile	Cys	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn
					65			70			75			80	

Pro His

<210> 58
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 58															
Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	Ala	Asp	Leu	Leu	Val
1					5				10				15		

Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu
20 25 30

Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val
35 40 45

Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp
50 55 60

Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser
65 70 75 80

Ser Lys

<210> 59

<211> 866

<212> DNA

<213> Homo sapiens

<400> 59

ctgtccctgt ccatgtatat ggtcacggtg ctgaggaacc tgctcagcat cctggctgtc 60
agctctgact ccccgctcca caccggatg tgcttcttcc tctccaaact gtgctcagct 120
gacatcggtt tcacccgtgc catggttccc aagatgattg tgaacatgca gtcgcata 180
agagtcatct cttatgaggg ctgcctgaca cggatgtctt tctttgtcct ttttgcatt 240
atggaagaca tgctcctgac tgtgatggcc tatgactgct ttgttagccat ctgtcgccct 300
ctgcactacc cagtcatcgt gaatcctcac ctctgtgtct tcttcgtcctt ggtgccttt 360
ttccttagcc cggtggattc ccagctgcac agttggattg tgttactatt caccatcatc 420
aagaatgtgg aaatcaataa ttttgtctgt gaaccctctc aacttctcaa ctttgcttgt 480
tctgacagcg tcatcaataa catattcata tatttcgata gtactatgtt tggttttctt 540
cccatttcag ggatccttt gtcttactat aaaattgtcc cctccattct aaggatgtca 600
tcgtcagatg ggaagtataa aggcttctcc acctgtggct cttacctggc agttgtttgc 660
tcatttgatg gaacaggcat tggcatgtac ctgacttcag ctgtgtcacc acccccccagg 720
aatgggtgtgg tggcgtcagt gatgtatgct gtggtcaccc ccatgctgaa cctttcata 780
ctcagcctgg gaaagagggta tatacaaagt gtcctgcgga ggctgtgcag cagaacagtc 840
gaatctcatg atatgttcca tccttt 866

<210> 60

<211> 866

<212> DNA

<213> Homo sapiens

<400> 60

ctgtccctgt ccatgtatct ggtcacggtg ctgaggaacc tgctcatcat cctggctgtc 60
agctctgacc cccacccatc caccggatg tgcttcttcc tctccaaacct gtgctggct 120
gacatcggtt tcacccgtgc caccgttcctt aagatgattg tggacatgca gtctcataacc 180

agagtcatct cttatgaggg ctgcctgaca cgatatctt tcttggcct ttttgcgt 240
atagaagaca tgctcctgac tgtgatggcc tatgactgct tttagccat ctgtcgccct 300
ctgcactacc cagtcatcgt gaatcctcac ctctgtgtct tcttccttt ggtatacttt 360
ttccttagct tgttggattc ccagctgcac agttggattg tgttacaatt caccatcatc 420
aagaatgtgg aaatctctaa ttttgtctgt gaccctctc aacttctcaa acttgccctgt 480
tctgacagcg tcataatag catattcatg tattccata gtactatgtt tggtttctt 540
cccatttcag ggatccttt gtcttactat aaaatcgcc cctccattct aaggatttca 600
tcatacagatg ggaagtataa agccttctcc acctgtggct ctcacttggc agttgttgc 660
tgatttatg gaacaggcat tggcgtgtac ctgacttcag ctgtgtcacc acccccccagg 720
aatggtgtgg tagcgtcagt gatgtacgct gtggcaccc ccatgctgaa cctttcatac 780
tacagcctga gaaacaggga catacaaagt gcccgtggc ggctgctcag cagaacagtc 840
gaatctcatg atctgttcca tccttt 866

<210> 61
<211> 265
<212> PRT
<213> Homo sapiens

<400> 61

Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
1 5 10 15

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
35 40 45

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
50 55 60

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
65 70 75 80

Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro
85 90 95

Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile
100 105 110

Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu
115 120 125

Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe
130 135 140

Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser

145 150 155 160

Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser Asp Gly
165 170 175

Lys Tyr Lys Gly Phe Ser Thr Cys Gly Ser Tyr Leu Ala Val Val Cys
180 185 190

Ser Phe Asp Gly Thr Gly Ile Gly Met Tyr Leu Thr Ser Ala Val Ser
195 200 205

Pro Pro Pro Arg Asn Gly Val Val Ala Ser Val Met Tyr Ala Val Val
210 215 220

Thr Pro Met Leu Asn Leu Phe Ile Tyr Ser Leu Gly Lys Arg Asp Ile
225 230 235 240

Gln Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp
245 250 255

Met Phe His Pro Phe Ser Cys Val Gly
260 265

<210> 62

<211> 264

<212> PRT

<213> Homo sapiens

<400> 62

Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe
1 5 10 15

Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser
20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val
35 40 45

Leu Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp
50 55 60

Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn
65 70 75 80

Pro Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu
85 90 95

Leu	Asp	Ser	Gln	Leu	His	Asn	Leu	Ile	Met	Leu	Gln	Leu	Thr	Cys	Phe
100															110
Lys Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu															
115															125
His Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe															
130															140
Met Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser															
145															160
Tyr Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly															
165															175
Lys Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys															
180															190
Leu Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu															
195															205
Pro Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val															
210															220
Thr Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile															
225															240
Gln Ser Ala Leu Cys Arg Leu His Gly Arg Ile Ile Lys Ser His His															
245															255
Leu His Pro Phe Cys Tyr Met Gly															
260															

<210> 63
 <211> 264
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (85)..(99)
 <223> Wherein Xaa is any amino acid.

<400> 63
 Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
 1 5 10 15

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
 20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
 35 40 45

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
 50 55 60

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
 65 70 75 80

Pro His Leu Cys Xaa
 85 90 95

Xaa Xaa Xaa Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile
 100 105 110

Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu
 115 120 125

Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe
 130 135 140

Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser
 145 150 155 160

Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser Asp Gly
 165 170 175

Lys Tyr Lys Gly Phe Ser Thr Cys Gly Ser Tyr Leu Ala Val Val Cys
 180 185 190

Ser Phe Asp Gly Thr Gly Ile Gly Met Tyr Leu Thr Ser Ala Val Ser
 195 200 205

Pro Pro Pro Arg Asn Gly Val Ala Ser Val Met Tyr Ala Val Val Thr
 210 215 220

Pro Met Leu Asn Leu Phe Ile Leu Ser Leu Gly Lys Arg Asp Ile Gln
 225 230 235 240

Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp Met
 245 250 255

Phe His Pro Phe Ser Cys Val Gly
 260

<210> 64
<211> 310
<212> PRT
<213> Homo sapiens

<400> 64
Met Gly Asp Asn Ile Thr Ser Ile Thr Glu Phe Leu Leu Leu Gly Phe
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg
85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu
100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro
115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala
130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val
145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe
165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His
180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly
195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile
210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Cys Thr Cys
225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Phe Tyr Gly Thr Ala Ile Ile
245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr
260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
290 295 300

Gly Val Glu Arg Ala Leu
305 310

<210> 65

<211> 190

<212> PRT

<213> Homo sapiens

<400> 65

Asn Leu Leu Ser Ile Leu Ala Val Ser Ser Asp Ser Pro Leu His Thr
1 5 10 15

Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
20 25 30

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
35 40 45

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
50 55 60

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
65 70 75 80

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
85 90 95

Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro
100 105 110

Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile

115

120

125

Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu
130 135 140

Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe
145 150 155 160

Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser
165 170 175

Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser
180 185 190

<210> 66

<211> 171

<212> PRT

<213> Homo sapiens

<400> 66

Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln Thr
1 5 10 15

Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val
20 25 30

Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu
35 40 45

Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val
50 55 60

Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp
65 70 75 80

Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser
85 90 95

Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu Ser
100 105 110

Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp Gln
115 120 125

Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser Ile
130 135 140

Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile Lys			
145	150	155	160
Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg			
165		170	
<210> 67			
<211> 310			
<212> PRT			
<213> Homo sapiens			
<400> 67			
Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe			
1	5	10	15
Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu			
20	25	30	
Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile			
35	40	45	
Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His			
50	55	60	
Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met			
65	70	75	80
Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg			
85	90	95	
Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu			
100	105	110	
Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro			
115	120	125	
Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala			
130	135	140	
Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val			
145	150	155	160
Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe			
165	170	175	
Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His			
180	185	190	

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly
195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile
210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys
225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile
245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr
260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
290 295 300

Gly Val Glu Arg Ala Leu
305 310

<210> 68

<211> 930

<212> DNA

<213> Homo sapiens

<400> 68

cacagagcca cggaaatctca caggtgtctg agaattcctc ctcctggac tctcagagga 60
tccagaactg cagtcggtcc tcgctttgt gtccctgtcc ctgtccctga atctggcac 120
ggtgctgagg aacctgctca gcacccctggc tgcgtactct gactcccccc tccacacccc 180
catgtacttc ttccctctcca acctgtgtc ggctgacatc ggtctcaccc cggccacgg 240
tcccaagggtt attctggata tgcagtcgca tagcagagtc atctctcatg tgggctgcct 300
gacacagatg tctttcttgg tcctttttgc atgtatagaa ggcatgtcc tgactgtgat 360
ggcctatggc tgctttgttag ccatctgtcg ccctctgcac taccctggatc tagtgaatcc 420
tcacctctgt gtcttcttcg ttttgggtgc ctttttccctt aacctgttgg attcccaagct 480
gcacagttgg attgtgttac aattcaccat catcaagaat gtggaaatct ctaatttttt 540
ctgtgacccc tctcagcttc tcaaccttgc ctgttctgac agcgtcatca atagcatatt 600
catatatttc gatagtacta tgtttggttt tcttccatt tcagggatcc ttttgtctta 660
ctataaaatt gtccccctcca ttcttaaggat gtcatacgta gatgggaagt ataaagcctt 720
ctccacccat ggctctcacc taggagttgt ttgctggttt tatggaaacag tcattggcat 780
gtacctggct tcagccgtgt caccacccccc caggaatgggt gtgggtggcat cagtgtatgta 840
ggctgtggtc acccccatgc tgaacctttt catctacagc ctgagaaaca gggacataca 900
aagtgcctcg cggaggctgc gcagcagaac 930

<210> 69
<211> 249
<212> PRT
<213> Homo sapiens

<400> 69

Pro	Thr	Tyr	Phe	Phe	Leu	Ser	Ile	Leu	Cys	Trp	Ala	Asp	Ile	Gly	Phe
1			5					10							15
Thr	Ser	Ala	Thr	Val	Pro	Lys	Met	Ile	Val	Asp	Met	Gln	Trp	Tyr	Ser
		20					25							30	
Arg	Val	Ile	Ser	His	Ala	Gly	Cys	Leu	Thr	Gln	Met	Ser	Phe	Leu	Val
	35					40						45			
Leu	Phe	Ala	Cys	Ile	Glu	Gly	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp
	50				55					75			60		
Cys	Phe	Val	Gly	Ile	Tyr	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn
	65			70					75				80		
Pro	His	Leu	Cys	Val	Phe	Phe	Val	Leu	Val	Ser	Phe	Phe	Leu	Ser	Leu
		85					90						95		
Leu	Asp	Ser	Gln	Leu	His	Ser	Trp	Ile	Val	Leu	Gln	Phe	Thr	Ile	Ile
		100				105						110			
Lys	Asn	Val	Glu	Ile	Ser	Asn	Phe	Val	Cys	Asp	Pro	Ser	Gln	Leu	Leu
	115				120							125			
Lys	Leu	Ala	Ser	Tyr	Asp	Ser	Val	Ile	Asn	Ser	Ile	Phe	Ile	Tyr	Phe
	130				135					140					
Asp	Ser	Thr	Met	Phe	Gly	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Ser	Ser
	145			150					155				160		
Tyr	Tyr	Lys	Ile	Val	Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly
		165					170					175			
Lys	Tyr	Lys	Thr	Phe	Ser	Thr	Tyr	Gly	Ser	His	Leu	Ala	Phe	Val	Cys
		180				185					190				
Ser	Phe	Tyr	Gly	Thr	Gly	Ile	Asp	Met	Tyr	Leu	Ala	Ser	Ala	Met	Ser
	195					200					205				
Pro	Thr	Pro	Arg	Asn	Gly	Val	Val	Val	Ser	Val	Met	Ala	Val	Val	Thr

210

215

220

Pro Met Leu Asn Leu Phe Ile Tyr Ser Leu Arg Asn Arg Asp Ile Gln
225 230 235 240

Ser Ala Leu Arg Arg Leu Arg Ser Arg
245

<210> 70

<211> 250

<212> PRT

<213> Homo sapiens

<400> 70

Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe
1 5 10 15

Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser
20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val
35 40 45

Leu Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp
50 55 60

Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn
65 70 75 80

Pro Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu
85 90 95

Leu Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe
100 105 110

Lys Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu
115 120 125

His Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe
130 135 140

Met Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser
145 150 155 160

Tyr Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly
165 170 175

Lys Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys
180 185 190

Leu Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu
195 200 205

Pro Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val
210 215 220

Thr Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile
225 230 235 240

Gln Ser Ala Leu Cys Arg Leu His Gly Arg
245 250

<210> 71

<211> 98

<212> PRT

<213> Homo sapiens

<400> 71

Asn Leu Leu Ser Ile Pro Ala Val Ser Ser Asp Ser His Leu His Thr
1 5 10 15

Pro Thr Tyr Phe Phe Leu Ser Ile Leu Cys Trp Ala Asp Ile Gly Phe
20 25 30

Thr Ser Ala Thr Val Pro Lys Met Ile Val Asp Met Gln Trp Tyr Ser
35 40 45

Arg Val Ile Ser His Ala Gly Cys Leu Thr Gln Met Ser Phe Leu Val
50 55 60

Leu Phe Ala Cys Ile Glu Gly Met Leu Leu Thr Val Met Ala Tyr Asp
65 70 75 80

Cys Phe Val Gly Ile Tyr Arg Pro Leu His Tyr Pro Val Ile Val Asn
85 90 95

Pro His

<210> 72

<211> 98

<212> PRT

<213> Homo sapiens

<400> 72

Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln Thr
1 5 10 15

Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val
20 25 30

Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu
35 40 45

Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val
50 55 60

Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp
65 70 75 80

Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser
85 90 95

Ser Lys

<210> 73

<211> 305

<212> PRT

<213> Homo sapiens

<400> 73

Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly
1 5 10 15

Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala
20 25 30

Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu
35 40 45

Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser
50 55 60

Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys
65 70 75 80

Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly
85 90 95

Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly
100 105 110

Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln
115 120 125

Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met
130 135 140

Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr
145 150 155 160

Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His
165 170 175

Phe Phe Cys Glu Val Pro Ala Leu Lys Leu Ser Cys Ala Asp Thr
180 185 190

Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met
195 200 205

Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala
210 215 220

Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr
225 230 235 240

Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val
245 250 255

Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn
260 265 270

Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val
290 295 300

Leu
305

<210> 74
<211> 305
<212> PRT
<213> Homo sapiens

<400> 74

Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly
1 5 10 15

Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu
20 25 30

Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu
35 40 45

Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr
50 55 60

Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Val Val Pro Gln
65 70 75 80

Leu Leu Ala His Phe Leu Ala Glu His Lys Ala Ile Pro Phe Gln Ser
85 90 95

Cys Ala Ala Gln Leu Phe Phe Ser Leu Ala Leu Gly Gly Ile Glu Phe
100 105 110

Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp
115 120 125

Ala Leu Arg Tyr Ser Ala Ile Met His Gly Gly Leu Cys Ala Arg Leu
130 135 140

Ala Ile Thr Ser Trp Val Ser Gly Phe Ile Ser Ser Pro Val Gln Thr
145 150 155 160

Ala Ile Thr Phe Gln Leu Pro Met Cys Arg Asn Lys Phe Ile Asp His
165 170 175

Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr
180 185 190

Ser Ser Asn Glu Val Thr Ile Met Val Ser Ser Ile Val Leu Leu Met
195 200 205

Thr Pro Leu Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr
210 215 220

Ile Leu Lys Ile Gln Ser Arg Glu Gly Arg Lys Lys Ala Phe His Thr
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Ala Leu Cys Tyr Gly Val Ala Ile
245 250 255

Phe Thr Tyr Ile Gln Pro His Ser Ser Pro Ser Val Leu Gln Glu Lys
260 265 270

Leu Phe Ser Val Phe Tyr Ala Ile Leu Thr Pro Met Leu Asn Pro Met
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu
290 295 300

Leu

305

<210> 75

<211> 305

<212> PRT

<213> Homo sapiens

<400> 75

Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly
1 5 10 15

Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala
20 25 30

Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu
35 40 45

Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser
50 55 60

Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys
65 70 75 80

Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly
85 90 95

Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly
100 105 110

Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln
115 120 125

Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met
130 135 140

Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr

145 150 155 160

Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His
165 170 175

Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr
180 185 190

Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met
195 200 205

Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala
210 215 220

Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr
225 230 235 240

Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val
245 250 255

Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn
260 265 270

Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val
290 295 300

Leu

305

<210> 76

<211> 311

<212> PRT

<213> Homo sapiens

<400> 76

Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly
1 5 10 15

Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu
20 25 30

Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu
35 40 45

Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr			
50	55	60	
Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Val Val Pro Gln			
65	70	75	80
Leu Leu Ala His Phe Leu Ala Glu His Lys Ala Ile Pro Phe Gln Ser			
85	90	95	
Cys Ala Ala Gln Leu Phe Phe Ser Leu Ala Leu Gly Gly Ile Glu Phe			
100	105	110	
Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp			
115	120	125	
Ala Leu Arg Tyr Ser Ala Ile Met His Gly Gly Leu Cys Ala Arg Leu			
130	135	140	
Ala Ile Thr Ser Trp Val Ser Gly Phe Ile Ser Ser Pro Val Gln Thr			
145	150	155	160
Ala Ile Thr Phe Gln Leu Pro Met Cys Arg Asn Lys Phe Ile Asp His			
165	170	175	
Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr			
180	185	190	
Ser Ser Asn Glu Val Thr Ile Met Val Ser Ser Ile Val Leu Leu Met			
195	200	205	
Thr Pro Leu Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr			
210	215	220	
Ile Leu Lys Ile Gln Ser Arg Glu Gly Arg Lys Lys Ala Phe His Thr			
225	230	235	240
Cys Ala Ser His Leu Thr Val Val Ala Leu Cys Tyr Gly Val Ala Ile			
245	250	255	
Phe Thr Tyr Ile Gln Pro His Ser Ser Pro Ser Val Leu Gln Glu Lys			
260	265	270	
Leu Phe Ser Val Phe Tyr Ala Ile Leu Thr Pro Met Leu Asn Pro Met			
275	280	285	
Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu			
290	295	300	

Leu Trp Lys Phe Ser Gly Leu
305 310

<210> 77
<211> 193
<212> PRT
<213> Homo sapiens

<400> 77
Gly Asn Thr Val Leu Leu Phe Leu Ile Arg Val Asp Ser Arg Leu His
1 5 10 15

Thr Pro Met Tyr Phe Leu Leu Ser Gln Leu Ser Leu Phe Asp Ile Gly
20 25 30

Cys Pro Met Val Thr Ile Pro Lys Met Ala Ser Asp Phe Leu Arg Gly
35 40 45

Glu Gly Ala Thr Ser Tyr Gly Gly Ala Ala Gln Ile Phe Phe Leu
50 55 60

Thr Leu Met Gly Val Ala Glu Gly Val Leu Leu Val Leu Met Ser Tyr
65 70 75 80

Asp Arg Tyr Val Ala Val Cys Gln Pro Leu Gln Tyr Pro Val Leu Met
85 90 95

Arg Arg Gln Val Cys Leu Leu Met Met Gly Ser Ser Trp Val Val Gly
100 105 110

Val Leu Asn Ala Ser Ile Gln Thr Ser Ile Thr Leu His Phe Pro Tyr
115 120 125

Cys Ala Ser Arg Ile Val Asp His Phe Phe Cys Glu Val Pro Ala Leu
130 135 140

Leu Lys Leu Ser Cys Ala Asp Thr Cys Ala Tyr Glu Met Ala Leu Ser
145 150 155 160

Thr Ser Gly Val Leu Ile Leu Met Leu Pro Leu Ser Leu Ile Ala Thr
165 170 175

Ser Tyr Gly His Val Leu Gln Ala Val Leu Ser Met Arg Ser Glu Glu
180 185 190

Ala

<210> 78
<211> 174
<212> PRT
<213> Homo sapiens

<400> 78

Gly	Asn	Val	Leu	Val	Cys	Met	Ala	Val	Ser	Arg	Glu	Lys	Ala	Leu	Gln	
1																15
Thr	Thr	Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	Ala	Asp	Leu	Leu	
																30
Val	Ala	Thr	Leu	Val	Met	Pro	Trp	Val	Val	Tyr	Leu	Glu	Val	Val	Gly	
																45
Glu	Trp	Lys	Phe	Ser	Arg	Ile	His	Cys	Asp	Ile	Phe	Val	Thr	Leu	Asp	
																50
50																55
Val	Met	Met	Cys	Thr	Ala	Ser	Ile	Leu	Asn	Leu	Cys	Ala	Ile	Ser	Ile	
65																80
Asp	Arg	Tyr	Thr	Ala	Val	Ala	Met	Pro	Met	Leu	Tyr	Asn	Thr	Arg	Tyr	
																85
85																90
Ser	Ser	Lys	Arg	Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val	Trp	Val	Leu	
																100
100																105
Ser	Phe	Thr	Ile	Ser	Cys	Pro	Met	Leu	Phe	Gly	Leu	Asn	Asn	Thr	Asp	
																115
115																120
Gln	Asn	Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val	Tyr	Ser	Ser	
																130
130																135
135																140
Ile	Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile	
145																150
150																155
Lys	Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg	Arg	Lys	Arg	Val	Asn			160
																165
165																170

<210> 79
<211> 305
<212> PRT
<213> Homo sapiens

<400> 79

Met	Gly	Asp	Val	Asn	Gln	Ser	Val	Ala	Ser	Asp	Phe	Ile	Leu	Val	Gly
1			5				10							15	
Leu	Phe	Ser	His	Ser	Gly	Ser	Arg	Gln	Leu	Leu	Phe	Ser	Leu	Val	Ala
	20					25								30	
Val	Met	Phe	Val	Ile	Gly	Leu	Leu	Gly	Asn	Thr	Val	Leu	Leu	Phe	Leu
	35					40								45	
Ile	Arg	Val	Asp	Ser	Arg	Leu	His	Thr	Pro	Met	Tyr	Phe	Leu	Leu	Ser
	50					55								60	
Gln	Leu	Ser	Leu	Phe	Asp	Ile	Gly	Cys	Pro	Met	Val	Thr	Ile	Pro	Lys
	65					70								80	
Met	Ala	Ser	Asp	Phe	Leu	Arg	Gly	Glu	Gly	Ala	Thr	Ser	Tyr	Gly	Gly
					85					90				95	
Gly	Ala	Ala	Gln	Ile	Phe	Phe	Leu	Thr	Leu	Met	Gly	Val	Ala	Glu	Gly
					100			105						110	
Val	Leu	Leu	Val	Leu	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Val	Cys	Gln
					115			120						125	
Pro	Leu	Gln	Tyr	Pro	Val	Leu	Met	Arg	Arg	Gln	Val	Cys	Leu	Leu	Met
					130			135						140	
Met	Gly	Ser	Ser	Trp	Val	Val	Gly	Val	Leu	Asn	Ala	Ser	Ile	Gln	Thr
	145				150					155				160	
Ser	Ile	Thr	Leu	His	Phe	Pro	Tyr	Cys	Ala	Ser	Arg	Ile	Val	Asp	His
					165					170				175	
Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ala	Asp	Thr
					180			185						190	
Cys	Ala	Tyr	Glu	Met	Ala	Leu	Ser	Thr	Ser	Gly	Val	Leu	Ile	Leu	Met
					195			200						205	
Leu	Pro	Leu	Ser	Leu	Ile	Ala	Thr	Ser	Tyr	Gly	His	Val	Leu	Gln	Ala
					210			215						220	
Val	Leu	Ser	Met	Arg	Ser	Glu	Glu	Ala	Arg	His	Lys	Ala	Val	Thr	Thr
	225				230					235				240	
Cys	Ser	Ser	His	Ile	Thr	Val	Val	Gly	Leu	Phe	Tyr	Gly	Ala	Ala	Val
					245			250						255	

Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn
260 265 270

Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu
275 280 285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val
290 295 300

Leu
305

<210> 80
<211> 305
<212> PRT
<213> Homo sapiens

<400> 80
Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly
1 5 10 15

Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu
20 25 30

Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu
35 40 45

Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr
50 55 60

Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Val Val Pro Gln
65 70 75 80

Leu Leu Ala His Phe Leu Ala Glu His Lys Ala Ile Pro Phe Gln Ser
85 90 95

Cys Ala Ala Gln Leu Phe Phe Ser Leu Ala Leu Gly Gly Ile Glu Phe
100 105 110

Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp
115 120 125

Ala Leu Arg Tyr Ser Ala Ile Met His Gly Gly Leu Cys Ala Arg Leu
130 135 140

Ala Ile Thr Ser Trp Val Ser Gly Phe Ile Ser Ser Pro Val Gln Thr
145 150 155 160

Ala Ile Thr Phe Gln Leu Pro Met Cys Arg Asn Lys Phe Ile Asp His
165 170 175

Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr
180 185 190

Ser Ser Asn Glu Val Thr Ile Met Val Ser Ser Ile Val Leu Leu Met
195 200 205

Thr Pro Leu Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr
210 215 220

Ile Leu Lys Ile Gln Ser Arg Glu Gly Arg Lys Lys Ala Phe His Thr
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Ala Leu Cys Tyr Gly Val Ala Ile
245 250 255

Phe Thr Tyr Ile Gln Pro His Ser Ser Pro Ser Val Leu Gln Glu Lys
260 265 270

Leu Phe Ser Val Phe Tyr Ala Ile Leu Thr Pro Met Leu Asn Pro Met
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu
290 295 300

Leu

305

<210> 81

<211> 183

<212> PRT

<213> Homo sapiens

<400> 81

Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val
1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu
20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr
35 40 45

Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val

50	55	60
Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Leu		
65	70	75
Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr Ser Trp		
85	90	95
Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu Pro		
100	105	110
Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys Glu Ile		
115	120	125
Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn Glu Asn		
130	135	140
Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu Ser Thr		
145	150	155
Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln Ile Gln		
165	170	175
Ser Arg Glu Val Gln Arg Lys		
180		

<210> 82
 <211> 164
 <212> PRT
 <213> Homo sapiens

<400> 82			
Ala Leu Gln Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala			
1	5	10	15
Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu			
20	25	30	
Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val			
35	40	45	
Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala			
50	55	60	
Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn			
65	70	75	80

Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val
85 90 95

Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn
100 105 110

Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val
115 120 125

Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu
130 135 140

Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val
145 150 155 160

Asn Thr Lys Arg

<210> 83

<211> 193

<212> PRT

<213> Homo sapiens

<400> 83

Gly Asn Thr Val Leu Leu Phe Leu Ile Arg Val Asp Ser Arg Leu His
1 5 10 15

Thr Pro Met Tyr Phe Leu Leu Ser Gln Leu Ser Leu Phe Asp Ile Gly
20 25 30

Cys Pro Met Val Thr Ile Pro Lys Met Ala Ser Asp Phe Leu Arg Gly
35 40 45

Glu Gly Ala Thr Ser Tyr Gly Gly Ala Ala Gln Ile Phe Phe Leu
50 55 60

Thr Leu Met Gly Val Ala Glu Gly Val Leu Leu Val Leu Met Ser Tyr
65 70 75 80

Asp Arg Tyr Val Ala Val Cys Gln Pro Leu Gln Tyr Pro Val Leu Met
85 90 95

Arg Arg Gln Val Cys Leu Leu Met Met Gly Ser Ser Trp Val Val Gly
100 105 110

Val Leu Asn Ala Ser Ile Gln Thr Ser Ile Thr Leu His Phe Pro Tyr
115 120 125

Cys Ala Ser Arg Ile Val Asp His Phe Phe Cys Glu Val Pro Ala Leu
130 135 140

Leu Lys Leu Ser Cys Ala Asp Thr Cys Ala Tyr Glu Met Ala Leu Ser
145 150 155 160

Thr Ser Gly Val Leu Ile Leu Met Leu Pro Leu Ser Leu Ile Ala Thr
165 170 175

Ser Tyr Gly His Val Leu Gln Ala Val Leu Ser Met Arg Ser Glu Glu
180 185 190

Ala

<210> 84

<211> 174

<212> PRT

<213> Homo sapiens

<400> 84

Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln
1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu
20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly
35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp
50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile
65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr
85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu
100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp
115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser

130	135	140
Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile		
145	150	155
Lys Ile Tyr Ile Val Leu Arg Arg Arg Lys Arg Val Asn		
165	170	
<210> 85		
<211> 305		
<212> PRT		
<213> Homo sapiens		
<400> 85		
Met Asn Pro Ala Asn His Ser Gln Val Ala Gly Phe Val Leu Leu Gly		
1	5	10
		15
Leu Ser Gln Val Trp Glu Leu Arg Phe Val Phe Phe Thr Val Phe Ser		
20	25	30
Ala Val Tyr Phe Met Thr Val Val Gly Asn Leu Leu Ile Val Val Ile		
35	40	45
Val Thr Ser Asp Pro His Leu His Thr Thr Met Tyr Phe Leu Leu Gly		
50	55	60
Asn Leu Ser Phe Leu Asp Phe Cys Tyr Ser Ser Ile Thr Ala Pro Arg		
65	70	75
		80
Met Leu Val Asp Leu Leu Ser Gly Asn Pro Thr Ile Ser Phe Gly Gly		
85	90	95
Cys Leu Thr Gln Leu Phe Phe His Phe Ile Gly Gly Ile Lys Ile		
100	105	110
Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Ile Ala Ile Ser Gln		
115	120	125
Pro Leu His Tyr Thr Leu Ile Met Asn Gln Thr Val Cys Ala Leu Leu		
130	135	140
Met Ala Ala Ser Trp Val Gly Gly Phe Ile His Ser Ile Val Gln Ile		
145	150	155
		160
Ala Leu Thr Ile Gln Leu Pro Phe Cys Gly Pro Asp Lys Leu Asp Asn		
165	170	175

Phe Tyr Cys Asp Val Pro Gln Leu Ile Lys Leu Ala Cys Thr Asp Thr
180 185 190

Phe Val Leu Glu Leu Leu Met Val Ser Asn Asn Gly Leu Val Thr Leu
195 200 205

Met Cys Phe Leu Val Leu Leu Gly Ser Tyr Thr Ala Leu Leu Val Met
210 215 220

Leu Arg Ser His Ser Arg Glu Gly Arg Ser Lys Ala Leu Ser Thr Cys
225 230 235 240

Ala Ser His Ile Ala Val Val Thr Leu Ile Phe Val Pro Cys Ile Tyr
245 250 255

Val Tyr Thr Arg Pro Phe Arg Thr Phe Pro Met Asp Lys Ala Val Ser
260 265 270

Val Leu Tyr Thr Ile Val Thr Pro Met Leu Asn Pro Ala Ile Tyr Thr
275 280 285

Leu Arg Asn Lys Glu Val Ile Met Ala Met Lys Lys Leu Trp Arg Arg
290 295 300

Lys

305

<210> 86

<211> 305

<212> PRT

<213> Homo sapiens

<400> 86

Met Gly Ala Leu Asn Gln Thr Arg Val Thr Glu Phe Ile Phe Leu Gly
1 5 10 15

Leu Thr Asp Asn Trp Val Leu Glu Ile Leu Phe Phe Val Pro Phe Thr
20 25 30

Val Thr Tyr Met Leu Thr Leu Leu Gly Asn Phe Leu Ile Val Val Thr
35 40 45

Ile Val Phe Thr Pro Arg Leu His Asn Pro Met Tyr Phe Phe Leu Ser
50 55 60

Asn Leu Ser Phe Ile Asp Ile Cys His Ser Ser Val Thr Val Pro Lys
65 70 75 80

Met	Leu	Glu	Gly	Leu	Leu	Glu	Arg	Lys	Thr	Ile	Ser	Phe	Asp	Asn												
85														95												
Cys Ile Ala Gln Leu Phe Phe Leu His Leu Phe Ala Cys Ser Glu Ile																										
100														110												
Phe Leu Leu Thr Ile Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Ile																										
115														125												
Pro Leu His Tyr Ser Asn Val Met Asn Met Lys Val Cys Val Gln Leu																										
130														140												
Val Phe Ala Leu Trp Leu Gly Gly Thr Ile His Ser Leu Val Gln Thr																										
145														160												
150																										
Phe Leu Thr Ile Arg Leu Pro Tyr Cys Gly Pro Asn Ile Ile Asp Ser																										
165														175												
Tyr Phe Cys Asp Val Pro Pro Val Ile Lys Leu Ala Cys Thr Asp Thr																										
180														190												
Tyr Leu Thr Gly Ile Leu Ile Val Ser Asn Ser Gly Thr Ile Ser Leu																										
195														205												
Val Cys Phe Leu Ala Leu Val Thr Ser Tyr Thr Val Ile Leu Phe Ser																										
210														220												
Leu Arg Lys Lys Ser Ala Glu Gly Arg Arg Lys Ala Leu Ser Thr Cys																										
225														240												
230																										
Ser Ala His Phe Met Val Val Thr Leu Phe Phe Gly Pro Cys Ile Phe																										
245														255												
250																										
Leu Tyr Thr Arg Pro Asp Ser Ser Phe Ser Ile Asp Lys Val Val Ser																										
260														270												
265																										
Val Phe Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu Ile Tyr Thr																										
275														285												
280																										
Leu Arg Asn Glu Glu Val Lys Thr Ala Met Lys His Leu Arg Gln Arg																										
290														300												
295																										
Arg																										
305																										

<210> 87

<211> 196

<212> PRT

<213> Homo sapiens

<400> 87

Gly Asn Leu Leu Ile Val Val Ile Val Thr Ser Asp Pro His Leu His
1 5 10 15

Thr Thr Met Tyr Phe Leu Leu Gly Asn Leu Ser Phe Leu Asp Phe Cys
20 25 30

Tyr Ser Ser Ile Thr Ala Pro Arg Met Leu Val Asp Leu Leu Ser Gly
35 40 45

Asn Pro Thr Ile Ser Phe Gly Gly Cys Leu Thr Gln Leu Phe Phe Phe
50 55 60

His Phe Ile Gly Gly Ile Lys Ile Phe Leu Leu Thr Val Met Ala Tyr
65 70 75 80

Asp Arg Tyr Ile Ala Ile Ser Gln Pro Leu His Tyr Thr Leu Ile Met
85 90 95

Asn Gln Thr Val Cys Ala Leu Leu Met Ala Ala Ser Trp Val Gly Gly
100 105 110

Phe Ile His Ser Ile Val Gln Ile Ala Leu Thr Ile Gln Leu Pro Phe
115 120 125

Cys Gly Pro Asp Lys Leu Asp Asn Phe Tyr Cys Asp Val Pro Gln Leu
130 135 140

Ile Lys Leu Ala Cys Thr Asp Thr Phe Val Leu Glu Leu Leu Met Val
145 150 155 160

Ser Asn Asn Gly Leu Val Thr Leu Met Cys Phe Leu Val Leu Leu Gly
165 170 175

Ser Tyr Thr Ala Leu Leu Val Met Leu Arg Ser His Ser Arg Glu Gly
180 185 190

Arg Ser Lys Ala
195

<210> 88

<211> 177

<212> PRT

<213> Homo sapiens

<400> 88

Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln
1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu
20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly
35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp
50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile
65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr
85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu
100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp
115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser
130 135 140

Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile
145 150 155 160

Lys Ile Tyr Ile Val Leu Arg Arg Arg Lys Arg Val Asn Thr Lys
165 170 175

Arg

<210> 89

<211> 310

<212> PRT

<213> Homo sapiens

<400> 89

Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
 20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
 35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
 50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
 65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg
 85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu
 100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro
 115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala
 130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val
 145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe
 165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His
 180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly
 195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile
 210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys
 225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile
 245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr
 260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
290 295 300

Gly Val Glu Arg Ala Leu
305 310

<210> 90
<211> 183
<212> PRT
<213> Homo sapiens

<400> 90
Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val
1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu
20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr
35 40 45

Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val
50 55 60

Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Leu
65 70 75 80

Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr Ser Trp
85 90 95

Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu Pro
100 105 110

Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys Glu Ile
115 120 125

Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn Glu Asn
130 135 140

Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu Ser Thr
145 150 155 160

Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln Ile Gln

165

170

175

Ser Arg Glu Val Gln Arg Lys
180

<210> 91

<211> 164

<212> PRT

<213> Homo sapiens

<400> 91

Ala Leu Gln Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala
1 5 10 15

Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu
20 25 30

Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val
35 40 45

Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala
50 55 60

Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn
65 70 75 80

Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val
85 90 95

Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn
100 105 110

Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val
115 120 125

Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu
130 135 140

Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val
145 150 155 160

Asn Thr Lys Arg

<210> 92

<211> 263

<212> PRT

<213> Homo sapiens

<400> 92

Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe Thr
1 5 10 15

Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser Arg
20 25 30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu
35 40 45

Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp Arg
50 55 60

Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn Pro
65 70 75 80

Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu Leu
85 90 95

Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe Lys
100 105 110

Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu His
115 120 125

Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe Met
130 135 140

Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser Tyr
145 150 155 160

Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly Lys
165 170 175

Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys Leu
180 185 190

Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu Pro
195 200 205

Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val Thr
210 215 220

Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile Gln
225 230 235 240

Ser Ala Leu Cys Arg Leu His Gly Arg Ile Ile Lys Ser His His Leu
245 250 255

His Pro Phe Cys Tyr Met Gly
260

<210> 93
<211> 173
<212> PRT
<213> Homo sapiens

<400> 93
Met Tyr Phe Phe Leu Ser Asn Leu Cys Trp Ala Asp Ile Gly Phe Thr
1 5 10 15

Leu Ala Thr Val Pro Lys Met Ile Val Asp Met Gly Ser His Ser Arg
20 25 30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu
35 40 45

Phe Ala Cys Ile Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp Gln
50 55 60

Phe Val Ala Ile Cys His Pro Leu His Tyr Pro Val Ile Met Asn Pro
65 70 75 80

His Leu Cys Val Phe Leu Val Leu Val Ser Phe Phe Leu Ser Leu Leu
85 90 95

Asp Ser Gln Leu His Ser Trp Ile Val Leu Gln Phe Thr Phe Phe Lys
100 105 110

Asn Val Glu Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu Asn
115 120 125

Leu Ala Cys Ser Asp Gly Ile Ile Asn Ser Ile Phe Ile Tyr Leu Asp
130 135 140

Ser Ile Leu Phe Ser Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser Tyr
145 150 155 160

Tyr Lys Ile Val Pro Ser Ile Leu Arg Ile Ser Ser Ser
165 170

<210> 94
<211> 154
<212> PRT
<213> Homo sapiens

<400> 94

Thr	Asn	Tyr	Leu	Ile	Val	Ser	Leu	Ala	Val	'	Ala	Asp	Leu	Leu	Val	Ala
1				5					10							15

Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu Trp

20					25				30						
----	--	--	--	--	----	--	--	--	----	--	--	--	--	--	--

Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val Met

35				40				45							
----	--	--	--	----	--	--	--	----	--	--	--	--	--	--	--

Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp Arg

50				55				60							
----	--	--	--	----	--	--	--	----	--	--	--	--	--	--	--

Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser Ser

65				70				75				80			
----	--	--	--	----	--	--	--	----	--	--	--	----	--	--	--

Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu Ser Phe

85				90				95							
----	--	--	--	----	--	--	--	----	--	--	--	--	--	--	--

Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp Gln Asn

100				105				110							
-----	--	--	--	-----	--	--	--	-----	--	--	--	--	--	--	--

Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser Ile Val

115				120				125							
-----	--	--	--	-----	--	--	--	-----	--	--	--	--	--	--	--

Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile Lys Ile

130				135				140							
-----	--	--	--	-----	--	--	--	-----	--	--	--	--	--	--	--

Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg

145				150											
-----	--	--	--	-----	--	--	--	--	--	--	--	--	--	--	--

<210> 95
<211> 320
<212> PRT
<213> Homo sapiens

<400> 95

Met	Leu	Leu	Cys	Phe	Arg	Phe	Gly	Asn	Gln	Ser	Met	Lys	Arg	Glu	Asn	
1				5					10							15

Phe Thr Leu Ile Thr Asp Phe Val Phe Gln Gly Phe Ser Ser Phe His

20				25				30							
----	--	--	--	----	--	--	--	----	--	--	--	--	--	--	--

Glu	Gln	Gln	Ile	Thr	Leu	Phe	Gly	Val	Phe	Leu	Ala	Leu	Tyr	Ile	Leu	
35															45	
Thr	Leu	Ala	Gly	Asn	Ile	Ile	Ile	Val	Thr	Ile	Ile	Arg	Ile	Asp	Leu	
50															60	
His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Ser	Met	Leu	Ser	Thr	Ser	
65															80	
Glu	Thr	Val	Tyr	Thr	Leu	Val	Ile	Leu	Pro	Arg	Met	Leu	Ser	Ser	Leu	
85															95	
Val	Gly	Met	Ser	Gln	Pro	Met	Ser	Leu	Ala	Gly	Cys	Ala	Thr	Gln	Met	
100															110	
Phe	Phe	Phe	Val	Thr	Phe	Gly	Ile	Thr	Asn	Cys	Phe	Leu	Leu	Thr	Ala	
115															125	
Met	Gly	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asn	Pro	Leu	Arg	Tyr	Met	
130															140	
Val	Ile	Met	Asn	Lys	Arg	Leu	Arg	Ile	Gln	Leu	Val	Leu	Gly	Ala	Cys	
145															160	
Ser	Ile	Gly	Leu	Ile	Val	Ala	Ile	Thr	Gln	Val	Thr	Ser	Val	Phe	Arg	
165															175	
Leu	Pro	Phe	Cys	Ala	Arg	Lys	Val	Pro	His	Phe	Phe	Cys	Asp	Ile	Arg	
180															190	
Pro	Val	Met	Lys	Leu	Ser	Cys	Ile	Asp	Thr	Thr	Val	Asn	Glu	Ile	Leu	
195															205	
Thr	Leu	Ile	Ile	Ser	Val	Leu	Val	Leu	Val	Val	Pro	Met	Gly	Leu	Val	
210															220	
Phe	Ile	Ser	Tyr	Val	Leu	Ile	Ile	Ser	Thr	Ile	Leu	Lys	Ile	Ala	Ser	
225															240	
Val	Glu	Gly	Arg	Lys	Lys	Ala	Phe	Ala	Thr	Cys	Ala	Ser	His	Leu	Thr	
245															255	
Val	Val	Ile	Val	His	Tyr	Ser	Cys	Ala	Ser	Ile	Ala	Tyr	Leu	Lys	Pro	
260															270	
Lys	Ser	Glu	Asn	Thr	Arg	Glu	His	Asp	Gln	Leu	Ile	Ser	Val	Thr	Tyr	
275															285	

Thr Val Ile Thr Pro Leu Leu Asn Pro Val Val Tyr Thr Leu Arg Asn
290 295 300

Lys Glu Val Lys Asp Ala Leu Cys Arg Ala Val Gly Gly Lys Phe Ser
305 310 315 320

<210> 96
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
primer

<400> 96
gtgccaccca gctgttcttt 20

<210> 97
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
primer

<400> 97
ttggcttgc ttgcaccaac tgcc 24

<210> 98
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
primer

<400> 98
cgatcatatc ccatcacagc aa 22

<210> 99
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
primer

<400> 99
gacatggcac ctgttatcaa gt

22

<210> 100
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
primer

<400> 100
cctgcactga caccatgtg aaagag

26

<210> 101
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
primer

<400> 101
ggatgctgag gctaaataaa gc

22

<210> 102
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide

primer

<400> 102
ggtggcagtg acctacaca 19

<210> 103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide primer

<400> 103
tcctcttgtc tacagtctga ggaacaa 27

<210> 104
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide primer

<400> 104
ccaagaactc ttttcaatgc a 21